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A New Approach to Investigative Interviews with Children: What can we Learn from the Interviewers?

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Submitted in partial fulfilment of the requirements for the degree of Doctorate in Clinical Psychology

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Chapter 1

What factors affect children's memory accuracy of planned stressful events?

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Abstract

The question of what influences children's memory accuracy is critical in forensic and legal contexts and has been extensively debated. There is a large evidence base examining the factors that influence children's memory accuracy of planned stressful events, given the obvious ethical issues of examining real-life personally traumatic events. This review aimed to systematically review this literature published within peer-review journals to understand what factors affect a child's memory accuracy of planned stressful events? Medline, PsychInfo, Sociology Collection and CINAHL databases were searched. 13 eligible studies were identified, and quality assessed. 8 of these studies were included in a narrative synthesis. Overall, 10 variables were examined at least twice across the 8 studies. The key factors that were found to influence memory accuracy were age, stress and attachment style. The review suggests that more high-quality research is needed.

Introduction

The topic of children's memory accuracy for stressful and traumatic experiences has been intensely scrutinised over the past few decades (Goodman et al., 2019). The question of what influences memory accuracy is critical in forensic and legal contexts, as children may be asked to testify in courts of law after witnessing or being victim to abuse. Their disclosures can have significant repercussions for themselves and the alleged perpetrator, so accuracy of their narrative is imperative (Ceci and Bruck, 1995). Until relatively recently there were widely held beliefs that children have a limited ability to provide accurate testimony. This statement made in 1976 at the Old Baily summarises these beliefs: 'It is well known that women in particular, and small boys, are liable to be untruthful and invent stories' (Sutcliffe, 1976 as cited in Oates et al., 1991). Although these beliefs have been challenged by modern research endeavours (Burgwyn-Bailes et al., 2001), developing an empirical understanding of what factors influence the accuracy of children's memory remains an important issue.

When children are witnesses in legal contexts, they are likely to be asked about events that have occurred at least a few months or even years ago. This means witnesses call upon their long-term memory, specifically their declarative memory. Declarative memory is made up of episodic and semantic components. Semantic memory refers to conceptually based knowledge, for example the meaning of words and objects and knowledge about people and places. Episodic, or autobiographical memory, refers to information about personally experienced events and the details (such as time and place) associated with them. Autobiographical memory is hence the relevant memory system examined within witness testimony research (Gordon et al., 2001).

At the age of 16-18 months, when children begin to put a few words together, they often talk fleetingly about past experiences (e.g., what they had for breakfast), demonstrating the development of their episodic memory from an early age. This continues to develop alongside their verbal language abilities. However, children as old as 11 years still struggle to construct a personal timeline of events. Although young children use words such as 'tomorrow' or 'yesterday', these terms can refer to any event in the past or future, until the age of 12. A complex and coherent autobiographical memory begins to develop in middle childhood (Fivush et al., 2011).

Many factors influencing the accuracy of autobiographical memories for stressful events have been examined. These include age, language development, stress, gender, and attachment style (Brubacher et al., 2019). As well as the length of the delay between event and memory interview and questioning style of the interviewer (Brubacher et al., 2019; La Rooy et al., 2015). Some of these factors are well defined and have an established impact on memory accuracy. For example, younger children are generally understood to recall less accurately than older children (Ornstein et al., 1997). Attachment style is hypothesised to influence the accuracy of children's autobiographical memories of stressful events. Attachment theory posits that our attachment style influences the development of emotion regulation strategies, this in turn may affect the level of attention paid to the event and influence the process of encoding and recollection of emotional information (Gordon, et al., 1997).

The ability to provide accurate testimony may also depend on the level of stress experienced during the event, though the specific influence stress has on memory accuracy is still debated (Burgwyn-Bailes et al., 2001; Baugerud & Melinder, 2012). There is evidence that some stress can improve memory performance, the Yerkes-Dodson law describes that as stress rises, performance and focus increases, but after this peaks and stress continues to increase, performance begins to decrease (Teigen, 1994). However, when stress becomes toxic or the event is experienced as traumatic, the accuracy of recall may be influenced differently than by low level stress. Trauma can make events and memories more difficult to process, organise and retrieve (Samuelson, 2011; Van der Kolk et al., 1995). When children experience traumatic events, they may disconnect themselves, or actively try not think about the trauma to reduce anxiety, resulting in hazy memories (Berliner, 2003). This may lead to trauma memories becoming disjointed, or fragmented, making narratives incoherent and appear less accurate (Samuelson, 2011; Vrana et al., 2019; Berliner, 2003).

For obvious ethical reasons children cannot be exposed to abuse for the purpose of research and so examining the true affect of the above factors objectively on children's memory for real-life personally traumatic events is not possible. Researchers have instead attempted to understand the impact of traumatic stress on memory accuracy by examining children's recall of natural disasters, separation from caregivers, watching stressful videos or puppet shows, and stressful medical procedures (Bahrick et al., 1998; Baugerud & Melinder, 2012; Burrell et al., 2016; Peterson, 1999; Goodman et

al., 1991). Similar neurobiological processes are thought to occur when these highly stressful or psychologically traumatising events are experienced, triggering the fight, flight freeze response (Sherin & Nemeroff, 2022) which is known to influence memory consolidation and retrieval (Wolf et al., 2003). Many research studies have hence examined memory accuracy of these type of stressful events to inform child testimony research.

However, much of this research (e.g. watching distressing videos) does not examine memory for a personally experienced event (Burrell et al., 2016), or doesn't have an objective record of the event to compare children's memory accuracy against (e.g. experiencing a natural disaster) (Bahrick et al., 1998; Baugerud & Melinder, 2012). Some studies have examined memory accuracy for planned stressful events such as venepuncture, dental surgery or invasive medical procedures such as Voiding Cystourethrogram Fluoroscopy (VCUG) that have an objective record, through video recording (Goodman et al., 1997).

Memory accuracy for this type of planned medical events can be objectively examined and the research is deemed to be especially useful to inform child testimony research. Experts in the field state that the similarities between abuse experiences and intrusive medical procedures make them somewhat 'analogous' events to examine (Ornstein, et al., 1997). However, there are many obvious differences between medical events and abuse experiences, a key one being that medical treatments aim to promote the child's health and not harm them. The medical event is also not secretive, and the child is likely prepared for it through conversation with their caregiver. This raises the question of whether medical events are comparable to abuse experiences and hence whether research into the memories of them are truly useful for child testimony research. However, there are a number of unique similarities with abuse experiences and medical procedures such as forced contact by a stranger, pain and a high level of distress (Salmon et al., 2002; Goodman et al., 1994; Ornstein, et al., 1997). Given this, there is a shared opinion held by researchers and experts in the field that stressful medical events are the closest type of experience available to be examined ethically; that are able to provide some relevant and useful implications for child testimony research (Pipe & Salmon, 2002; Quas et al., 1997; Alexander et al., 2002).

Since the 1990's there has been a lot of research attention focussed on children's memory accuracy for stressful events that are thought to hold similarities to abuse experiences, to inform child testimony research. As such several reviews have been conducted. Ornstein et al (1997) reviewed literature that explores children's memory accuracy in routine physical examinations and stressful medical procedures. Their review concludes that children's knowledge of an event affects how it is recalled and that older children provide more information than younger children. Gordon et al. (2001) reviewed research associated with children's memory for past experiences, they summarised that even very young children can recall past experiences. They found that age, length of delay between interview and event, amount of exposure to the event and prior knowledge can influence the accuracy of those memories. Sjöberg (2005) also conducted a systematic review of age-related memory errors exclusively in VCUG procedures, which found older children were more accurate than younger children when recalling the event.

However, none of these reviews used a systematic search method to research the whole body of literature examining autobiographical memory for planned stressful events, or critically appraised the quality of the research body. Furthermore, existing reviews that have looked at factors associated with memory accuracy of childhood stressful events have included studies that do not have an objective measure of the event to determine memory accuracy with. For example, some literature compares the child's memory of the event to the parent or clinician's memory, or to standard procedure (e.g. Quas et al., 1999). This may in some circumstances be reliable however within literature involving children's memory of stressful events, witnessing the event as a parent or carer may be understood as a stressful experience in itself. This may feasibly alter the perception of the memory and cannot be seen as a true objective measure of the event (Baker-Ward et al., 2015).

To date there has not been a systematic review conducted to synthesise research examining children's memory accuracy of planned stressful events that use an objective measure of the event. Given this, alongside the enduring discussion regarding what factors influence memory accuracy, a systematic review of published research is of value to answer the following question:

What are the factors that can affect a child's memory accuracy of planned stressful events?

Methods

Information Sources

The following electronic databases were searched:

- Medline database via Ovid Medline (R) ALL 1946 to 14th June 2022
- PsychInfo database via Ovid APA PsychInfo 1967 to June Week 3 2022
- Sociology Collection (ASSIA, Sociological Abstracts, Sociology Database) via ProQuest
- CINAHL via EBSCO

Hand searching was conducted within the "Journal of Police and Criminal Psychology" and "Trauma, Violence, & Abuse" and "Journal of Criminal Justice" to reduce the risk of missing relevant articles as advised from consultation with a librarian.

The reference lists of included studies were hand searched to review articles for inclusion. No research studies were found to be eligible for inclusion through hand searching from reference lists or the three additional journals.

Search Strategy

The search strategies were developed with support from a librarian and were conducted separately before being combined with "AND". The search terms were slightly different in each of the databases, this was advised by a librarian due to the journals allocating very different subject headings to the studies identified at the initial scoping search stage.

The final search was conducted on 14^{th} June 2022 and all databases were searched on the same day.

The complete set of search strategies can be found in Appendix 1. The search strategy used in Medline is displayed below as an example:

Medline Search Strategy

(child* or young* or teen* or adoles* or preschool or infant*). ti,ab. OR adolescent/ or child/ or child, preschool/ or infant/

AND

(memor* or recall* or retention or retain* or recollect* or rememb*).ti,ab. OR memory/ or memory, short-term/ or memory, long-term/ or memory, episodic/ or mental recall/ or recognition, psychology/ or retention, psychology/

AND

((life* or stress* or emotion* or medical or trauma* or distress*) adj4 (event* or experienc* or procedure*)).ti,ab. OR life change events/ or pain/ or accidents/ or stress, psychological/ or psychological distress/ or vaccination/ or immunization/ or wounds and injuries/

Inclusion Criteria:

- Participants are children
- Events are stressful
- Events are planned (e.g. medical procedures)
- Events involve an objective measure of accuracy
- Memory accuracy of autobiographical memory is assessed
- Articles are in peer-reviewed journals

Exclusion criteria:

- Events are not personally experienced (e.g. watching stressful film)
- Unpublished articles, book chapters, review papers, guidelines, frameworks, conference proceedings and dissertations
- Articles in language other than English

Data Collection Procedure

PRISMA guidance was used to conduct the search (Subirana et al., 2005). A total of 11,232 papers were identified and after de-duplication 9,193 were reviewed for inclusion. Following PRISMA guidance, the articles were first screened by title and abstract by the lead reviewer. The remaining articles were then eligibility assessed using the inclusion and exclusion criteria against full text articles (*see Figure 1*). A proportion of 10% of these articles were screened for eligibility by a second reviewer. There were no disagreements in eligibility decisions between lead and second reviewer.

Quality Appraisal

Quality appraisal enables research studies to be examined for sources of bias and to establish the level of quality of the research. To perform a quality appraisal assessment, an appropriate tool must be chosen. Due to the studies in this review using different research designs, the Crowe Critical Appraisal Tool (CCAT) was deemed most suitable as it retains construct validity when applied to studies of different designs (Crowe & Sheppard, 2011). This tool is technically a quality appraisal tool, and not risk of bias assessment tool. Overall scores indicate study's quality and not risk of bias specifically, however in the process of quality appraising the tool was used to identify sources of bias within and across the papers which are highlighted in the results section (Crowe & Sheppard, 2011).

The CCAT involves assessment of 8 categories which are given scores out of 5, where a higher score indicates a higher quality of research. The scores for each area are summarised into a total score out of 40, indicating the paper's overall quality.

Inter-rater Reliability

The process of quality appraising the research studies initially involved a calibration stage where 1 paper was randomly selected and appraised together with a second reviewer. Following this the lead reviewer independently assessed the research studies and a random sample of 2 papers were independently assessed by the second reviewer to assess inter-rater reliability. Score discrepancies were resolved through discussion between the reviewers using the CCAT user guide.

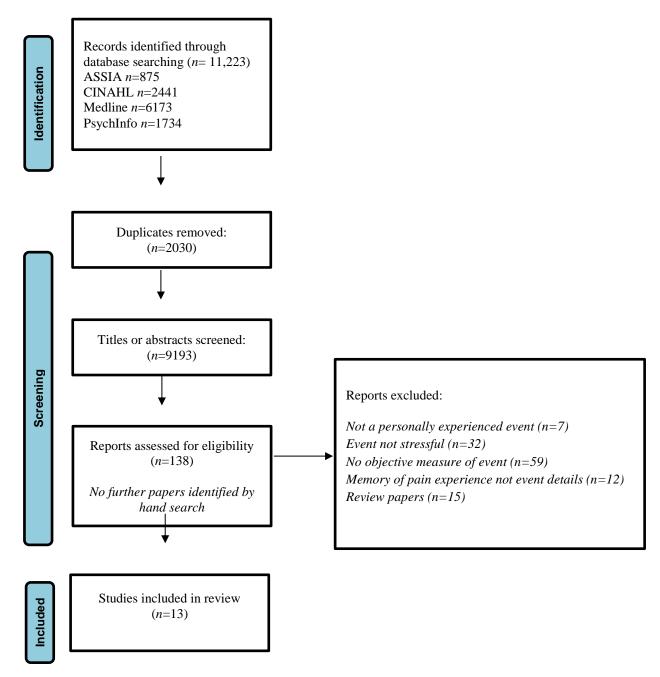


Figure 1. Flow diagram of search results and article selection

Method of Synthesis

Data extraction was conducted manually for identified studies by the lead reviewer. Relevant data comprised of: study design, sample characteristics, type of planned stressful event, outcome measures and results (see Table 2 and 3). Many of the studies, in addition to examining memory accuracy, looked at memory suggestibility. Only memory accuracy for events were included in this review, any other measures were ignored.

A narrative synthesis was deemed the most suitable method of synthesising the data due to the papers having different research designs, memory accuracy measures and a range of different factors examined as predictors of memory accuracy. Narrative synthesis involved summarising data from the identified papers and evaluating the similarities and differences between the findings. This is described alongside a critical appraisal of bias ratings using the CCAT.

Results

This systematic review identified 13 relevant studies using the exclusion and inclusion criteria listed above, which examine factors that influence accuracy of children's memory for planned stressful events.

Quality Appraisal Assessment

To ensure a minimum level of quality of the studies included, the CCAT quality appraisal tool was used, the ratings of which are included in Table 1. During the process of quality appraisal, it was found that 2 papers (Goodman et al., 1994 & Goodman et al., 1997) examined the same sample in the same stressful event. The Goodman et al. (1994) paper was excluded from further analysis to avoid repetition of data and was chosen for exclusion due to having a slightly lower quality appraisal score.

Of the 12 remaining papers, only 4 were deemed high quality indicated by their scores on the CCAT tool (75-93%). Papers identified as high quality used age matched controls in experimental studies, provided a replicable description of study procedure, used reliable and valid measures and controlled for potential confounding variables in their analysis. Studies that received the lowest quality ratings generally used outcome measures with unassessed validity and reliability ratings, used a small sample size indicating low statistical power, didn't describe their sampling procedures and didn't address ethical issues.

Ethical concerns were a central issue across almost all the studies. Only 1 of the papers stated they had sought approval for their methods and procedure from a university institutional review board (Chae et al., 2014). Generally, the other papers provide some indication that consent, or informed consent was gained prior to experimentation but discuss no other ethical considerations within the study. Two exceptions to this were

Salmon et al. (2002) and Vandermaas et al. (1993) who didn't mention any detail about ethical considerations of the research, or state whether they gained consent from the child, parent or legal guardian of the child. Given the highly stressful and personal nature of some of the events reviewed, ethical considerations are imperative to highlight. There appeared to be some relationship between the date of the paper and ethical issues addressed, with the older papers from 20-30 years ago generally discussing this less. It may be argued these study's low scores may reflect a mismatch between this review's modern high standard for research ethical considerations, and the expectations from the time the studies were conducted. This may in part be true, however, there is reference to one of the articles' authors explicitly claiming there are 'no ethical problems' associated with these types of medical studies (Ornstein, et al., 1997), alongside one letter to an editor by an author unrelated to this review who highlights and summarises some of these key ethical issues within this area of research and reflects whether the research attitude may be 'voyeuristic' to children's distress (Wescott, 1994). Given this, all studies that made little or no reference to ethical considerations were given a low score on the CCAT.

Most of the studies included in the quality appraisal had very similar low scores on the CCAT. The decision to exclude or include papers was therefore made through specific consideration of the risk of bias concerns that were highlighted though the quality appraisal process. Those studies with high risk of bias were excluded and those with low risk of bias were included, even though their overall quality appraisal score was brought down by other factors (such as poor detail on ethical concerns).

Hence, it was decided that 4 studies with lower quality appraisals that were deemed to have low risk of bias in other areas were included in the narrative synthesis (Baker-Ward et al., 2015; Merritt et al., 1994; Shrimpton et al., 1998., Vandermaas et al.,1993). The remaining four studies that had a similar low quality rating as measured by the CCAT tool were excluded from further analyses, because they were identified as having a high risk of bias for the following reasons: Goodman et al.,1991a *study 2* and *study 4* provided no clear aims or hypotheses to the study and manipulated the stress categories to overrepresent those children who were deemed highly stressed. In their data collection they asked both direct and suggestive questions in combination, meaning direct questions often followed suggestive questions, biasing the responses of the directive questions. For this latter reason Goodman et al. (1991)b was also

excluded. Oates et al. (1991) used a quasi-experimental design, with a vaccination group but used a non-comparative control group (each child met a friendly stranger who placed a piece of clothing on them and then removed it).

Overall, 8 studies were included in the narrative synthesis.

Potential Sources of Bias within Included Studies

The CCAT highlighted some key issues across the identified 8 studies. The first potential issue is the measure of memory accuracy. This systematic review only included studies that had an objective measure of the stressful event in an attempt to reduce bias in the measure of accuracy. However, within the identified studies, and the wider literature of children's memory accuracy, there is a lack of a shared specific definition of memory accuracy. For example, some studies measure accuracy by independently assessing the total units of correct and incorrect information recalled (Alexander et al., 2002). Others define accuracy as the proportion of correct information recalled against a list of a list of target features (Vandermaas et al., 1993). The American Psychological Association (2022) provide a general definition of accuracy in the context of psychological research as the 'proportion of correct responses'. Not all studies used a proportion measure of memory recall. However, every study included either a measure of the total units or proportion of information correctly and incorrectly recalled (see Table 3). All these indexes of memory recall were extracted and collated to interpret implications for memory accuracy in the narrative synthesis.

The second potential source of bias is the different question styles used to obtain information from children. A common question style used was 'free recall' or 'openended' questions which generally took the form of 'tell me what happened'. This question type encourages the child to provide a description of the event in their own words and was commonly followed up by open-ended prompts (e.g. 'what happened next'). Another question type often used in the studies was 'direct questions' which ask about something specific (e.g. 'what did the nurse place on your arm'), and the final type of question used was 'misleading' or 'suggestive' questions which imply the answer or suggest incorrect information e.g. 'the nurse was rude to you, wasn't she?'. For the purposes of this review only children's memory accuracy in response to free recall/open-ended and direct questions were examined as misleading and suggestive

questions reflect children's memory suggestibility rather than accuracy. In 1 research article, authors described asking children 'direct questions' but on closer examination this included misleading components, hence only the data from these studies from their free recall questions were included in the review (Alexander et al., 2002).

A further potential source of bias within the identified studies is the measure of stress. 3 studies used self-report measures of children's stress (Shrimpton et al.,1998; Vandermaas et al., 1993; Merritt et al., 1994) and 5 papers used a global observational measure of children's stress during the event (Alexander et al., 2002; Goodman et al.,1997; Chae et al., 2014; Shrimpton et al., 1998; Merritt et al., 1994). Use of observational tools may be less reliable, given the assessment is of the emotional experience of a personally stressful event. However self-report measures during the event may not have been practical in the current studies as it may have been inappropriate to interrupt the required medical procedure to gain the child's self-report. Some studies did include both observational and self-report measures and correlated the scores which may have reduced bias (Shrimpton et al., 1998; Merritt et al., 1994). Five studies used a different approach and utilised standardised measures to assess behaviours that are indicative of stress. Two used the Behaviour Profile Rating Scale (BPRS) which looks at behaviours that indicate dental fear or anxiety in children (Baker-Ward et al., 2015; Vandermaas et al., 1993); one study used the Child Behaviour Checklist (CBCL) assessing internalised and externalised indicators of emotional difficulty through parental reports (Goodman et al. 1997) and Salmon et al. (2002) used the Child-Adult Medical Procedure Interaction Scale Revised CAMPIS-R, assessing indicators of children's distress in medical procedures. Although these tools are reported to have acceptable levels of validity and reliability themselves, in combination they are unlikely to map onto the exact same construct of stress or anxiety.

Table 1. Quality Appraisal using CCAT

Article	Study Included	Total %	Total (max=40)	Preliminaries	Introduction	Design	Sampling	Data collection	Ethical matters	Results	Discussion
Alexander et al. (2002)	Yes	75%	30	5	5	3	3	3	2	5	4
Baker-Ward et al. (2015)	Yes	68%	27	4	4	3	2	3	2	4	5
Chae et al. (2014)	Yes	90%	36	5	5	4	3	5	4	5	5
Goodman et al. (1991) a Study 2	No	60%	24	3	5	3	2	3	1	3	4
Goodman et al. (1991) a Study 4	No	60%	24	3	5	3	2	3	1	3	4
Goodman et al. (1991) <i>b</i>	No	68%	26	3	5	3	3	3	2	3	4
Goodman et al. (1994)	No	73%	29	5	5	3	3	3	2	3	5
Goodman et al. (1997)	Yes	75%	30	5	5	3	3	4	2	3	5
Merritt et al. (1994)	Yes	68%	28	5	4	4	2	3	3	3	4
Oates et al. (1991)	No	50%	20	4	3	3	2	2	0	3	3
Salmon et al. (2002)	Yes	78%	31	5	4	3	3	4	3	4	5
Shrimpton et al. (1998)	Yes	68%	27	4	5	3	4	3	0	4	4
Vandermaas et al. (1993)	Yes	73%	29	4	5	4	3	4	0	4	4

Table 2. Study Characteristics

	Study	Study Characteristics	Factors examined & Measures	Stress Measure
1	Alexander et al. (2002)	 USA sample Vaccination n=43 	Age in years Gender Socioeconomic status	• Global stress scale (<i>1</i> = <i>happy</i>) – (<i>7</i> = <i>hysterically upset</i>) Rated by 2 independent researchers
	Cohort	 Age 3-7 years Interview 2 weeks after 	Stress Parents self-rated Attachment Style: • RSQ (Relationship Scales Questionnaire) • RQ (Relationship Questionnaire) Parental Personality: • NEO Five-Factor Inventory Child Temperament • CBQ (Children's Behaviour Questionnaire) Cognitive Inhibition: • Day/Night Task	
2	Baker-Ward et al. (2015) Cohort	 USA sample Minor dental operative procedure n=28 Age 4-11 years Interviewed immediately after 	Age in months Knowledge: • Parental questionnaire asking whether dental procedure had been discussed with child prior (4 point scale from No – Yes, extensively) Unpleasant dental experience • Parental questionnaire asking whether child has ever had unpleasant dental experience (Yes/No answer)	Dental anxiety via Behaviour Profile Rating Scale (BPRS) Rated by researcher
3	Chae et al. (2014)	USA sampleVaccinationn=91	Age in years Child's representation of attachment relationships: • Attachment Story Completion Task (ASCT)	• Global stress scale (1=happy) – (7=hysterically upset) Rated by 2 independent researchers
	Cohort	Age 3-6 yearsInterviewed 1 week after	Adult attachment-related anxiety and avoidance: • Experiences in Close Relationships Inventory Child temperament • Temperament Assessment Battery for Children Children's behavioural and emotional problems	

 Goodman et al. (1997)	 USA sample Voiding Cystourethrogram 	 Caregiver–Teacher Report Form and Teacher Report Form Adult personality traits NEO Five-Factor Inventory Adults' behavioural problems Adult Self-Report Age group (3-4), (5-6) and (7-10) Stress 	Global stress scale (1= extremely unhappy - 5=extremely happy) Global stress scale (1= extremely unhappy - 5=extremely happy)
Cohort	Fluoroscopy (VCUG) n=46 • Age: 3-10 years Interviewed between 6-27 days after	Gender Delay Other medical procedures on same day Repeated experiences • Single or multiple VCUG's Parents self-rated Attachment Style • Close Relationships Questionnaire (CQC) Knowledge: • Child Preparation Questionnaire Mother's response to child's reactions: • Mother's Reaction Questionnaire	 Global stress scale (1= not crying at all - 5=hysterically crying) Both completed by researcher at 6 time points: Child entered room During x-ray During catheterization When parent left room When child voided When child reunited with parent
Merritt et al. (1994) Cohort	 USA Sample Voiding Cystourethrogram Fluoroscopy (VCUG) n=24 Age: 3-7 years Interviewed immediately after and 6 weeks after 	Age in months Stress Repeat Interview Child temperament: • Temperament Assessment Battery for Children (TABC) (measures 6 dimensions of temperament)	 The Observational Scale of Behavioural Distress (OSBD) Completed by researcher Child self-rated Oucher instrument (photographic display of seven facial expressions depicting increasing pain) Radiologic technologist completed 5-point global scale on observed fearfulness, pain and child's level of cooperation Parent completed 'visual analogue' scale to estimate child's fear whilst wating (no further detail's of measure provided) Child's salivary cortisol levels pre and post VCUG
Salmon et al. (2002) Cohort	 Australia sample Voiding Cystourethrogram Fluoroscopy (VCUG) n=29 	Age group • (2.5-3.5) and (3.5-7) Stress Receptive Language	Child-Adult Medical Procedure Interaction Scale Revised CAMPIS-R (crying and screaming category) Completed by researcher

		 Age 2-7years Interviewed 6 months after 	 PPVT-R (Peabody Picture Vocabulary Test-Revised) Procedure related talk Child-Adult Medical Procedure Interaction Scale Revised (CAMPIS-R) (specifically the categories of: Information seeking, Assertive Procedural Verbalisation, Verbal resistance) Non-Procedural Talk CAMPIS-R (distraction category) 	
7	Shrimpton et al. (1998) Quasi- experimental	 Australia sample Venepuncture	Age group • (4-5), (6-7), (8-9) and (10-12) Stress Location of Interview • Hospital or neutral location such as home or school) Time Delay	Global worry scale (1=not at all worried - 5=worried) Completed by children, researcher, and parents
8	Vandermaas et al. (1993) Quasi- experimental	 USA sample Dental Surgery n=40 Control (routine dental exam) n=40 Age: 4-8 years Interviewed immediately after 	Age group • (4-5) and (7-8) Gender Dental history: • Parental Questionnaire	 Dental anxiety via Behaviour Profile Rating Scale (BPRS) - Researcher assessed Anxiety Likert scale (1=not at all anxious - 5=extremely anxious) parent and hygienist rated Child self-report upset face scale (1=very happy - 5=very sad) completed during and after procedure

Table 3. Study Results

	Study	Memory Assessment		Factors Increasing Memory Accuracy	-	Factors Reducing Memory Accuracy	×	Factors Not Associated with Memory Accuracy	
1	Alexander et al. (2002) Cohort	al. (2002) <i>'What happened'</i> • Total units of correct information		Parental attachment anxiety Low parental attachment avoidance x high distress		Inhibition		Gender Stress Parental attachment avoidance Child temperamnet	
2	Baker-Ward et al. (2015)	Free recall (including open-ended prompts) • Proportion correct Direct Questions 'Wh' prompts • Proportion correct	Age Knowl	edge			Stress		
3	Chae et al. (2014) Cohort	Free recall Total units of correct information Total units of incorrect information Proportion correct Direct questions Mean correct Mean Incorrect Proportion correct Proportion correct Proportion commission errors	attachi Low p	re representation of ment relationships arental attachment nce x high distress	Paren avoid	tal attachment ance	Stress Parenta	al attachment anxiety	
4	Goodman et al. (1997) Cohort	Free recall (including open-ended prompts) Mean units of correct information Mean units of incorrect information Direct questions Proportions of correct responses, proportions of commission errors proportions of omission errors	Age Knowl	edge		tal attachment anxiety tal attachment	Gender Delay	r	
5	Merritt et al. (1994) Cohort	Free recall Proportion of features reported against a VCUG List of features	Tempe	erament	Stress		Age Gender Previo	r us VCUG's	

					Repeated interview
6	Salmon et al. (2002) Cohort	Free recall (included open-ended prompts) Mean correct items Total errors Specific accuracy measure (proportion correct)	Procedure-related talk	Distracton	Stress Previous VCUG's Receptive language Age
7	Shrimpton et al. (1998) Quasi- experimental	Free recall	Age Stress Repeated interview		Location Delay
8	Vandermaas et al. (1993) Quasi- experimental	 Free recall Proportion of correct features and intrusions against a list of target features Direct questions Proportion of correct and incorrect responses against a list of target features 	Age	Age x Stress	Gender Location Number of other children in office Frequency of seeing dentist in last year Emotional quality of past experinces with dentist in last year Children's tempermanet Parental preperation

Outcomes

Age

All 8 studies assessed the influence of age on memory accuracy. 3 found age to be associated with more units of correct information given in response to free recall and direct questions, with older children recalling more than younger (Chae et al., 2014; Goodman et al., 1997; Shrimpton et al., 1998). Older age was also found to be a predictor of correct memory recall in 3 studies (Chae et al., 2014; Goodman et al., 1997; Baker-Ward et al., 2015). These studies are not directly comparable as they assessed the relationship between age and memory accuracy using different age groups. For example, Chae and colleagues (2014) grouped children by their age in years for 3-6 year olds and Shrimpton and colleagues (1998) split children into 4 age groups 4-5, 6-7, 8-9 and 10-12. Collectively, however these findings suggest generally that as children get older, they provide more correct information.

In 4 studies, age was inversely associated with incorrect information, with younger children making more errors than older children in response to direct questions (Chae et al., 2014; Shrimpton et al., 1998; Vandermaas et al., 1993) and in response to free recall (Goodman et al., 1994). However, unlike the association with age and correct recall, the finding that younger children made more errors was only found in response to 1 of the question types and not both.

In contrast, 3 studies found no relationship between age and memory accuracy (Alexander et al., 2002; Merritt et al., 1994; Salmon et al., 2002) and in the latter two the youngest children (age 2 and 3) were reported to be very accurate in their recollection. Similarly, Vandermaas and colleagues (1993) found proportions of

intrusions in younger children (age 4-5) were extremely low, and Goodman and colleagues (1997) found that regardless of age, all children made errors to direct questions.

Gender

4 studies looked at the influence of gender, no significant associations were found with any of the memory indexes (Alexander et al., 2002; Goodman et al., 1997; Vandermaas et al., 1993; Merritt et al., 1994).

Stress

Every study included a measure of stress and confirmed that children were to some degree experiencing stress during the planned event. In 4 studies there was no effect of stress found on memory accuracy in any of the question types (Alexander et al., 2002; Chae et al., 2014; Baker-Ward et al., 2015; Salmon et al., 2002). Out of these studies two of the event types were vaccination, 1 was VCUG and 1 was described as a minor dental operation.

In Goodman and colleagues (1997) VCUG study, children were generally found to make more memory errors the more distressed they were. Higher 'upset' ratings by the researcher were observed during catheterisation, the first x-ray and voiding stages of VCUG and these were found to be associated with errors to direct questions. Merritt, and colleagues (1994) found higher stress in VCUG procedures was related to a lower proportion of correct responses in free recall. However, in this study there were 5 measures of stress including behavioural indicators, self-rated stress, observed fearfulness from the point of view of the researcher and parent and a salivary cortisol measure and none of these were significantly associated with memory accuracy. Furthermore, they did not significantly correlate to each other suggesting low reliability for this finding.

Two studies used a control group to examine the influence of stress on memory accuracy, Shrimpton and colleagues (1998) found that children in the stress group provided less incorrect responses in free recall, regardless of whether there was a delay to interview. Vandermaas and colleagues (1993) found that when children were highly anxious in dental treatments, older age predicted reduced amounts of correct

information and younger age predicted increased correct information. However, in secondary analysis, when knowing the dentist through previous dental treatments was controlled for, there was no longer a significant interaction between age and anxiety. Suggests that interaction of age and anxiety on memory performance is affected not just by age but by experience child has with dentist

Indirectly related to stress, Baker-Ward and colleagues (2015) found that an unpleasant dental experience predicted proportion of correct information in open-recall.

Relational Factors

Goodman and colleagues (1997) found that for children who had parents that rated themselves as having insecure attachment styles, their accuracy of recall reduced. Children with parents with an avoidant attachment style was a significant predictor of the overall amount of incorrect information children gave and parents with an anxious-ambivalent attachment style had children who made more errors in direct questions. Interestingly, Mothers with high scores on both avoidant or anxious-ambivalent scales were found to provide less physically comfort to their children and spent less time talking about the VCUG with their child.

Alexander and colleagues (2002) found that self-rated parental attachment anxiety was associated with increased correct units of free recall. Parent's parental attachment avoidance was not correlated to any memory indexes. However, secondary analysis found an interaction between parental attachment avoidance and stress, which predicted correct free recall. For children with low parental attachment avoidance, as stress increased so did correct free recall and for children with high parental avoidance, as distress increased, correct free recall decreased. This prediction remained significant after adding parent personality variables and child temperament variables, suggesting attachment relates to children's memory beyond contribution of their personality.

Chae and colleagues (2014) found that self-reported parental attachment-related anxiety was not found to interact with any variables predicting memory performance. Using measures of children's representation of attachment relationships, children with a more positive representation of parents provided more correct information in free recall and

in specific questions. In secondary analysis, positive representations of parents were found to predict higher proportions of correct recall in direct questions. Children with parents with higher parental attachment avoidance were associated with providing more errors to direct questions. Parental attachment Avoidance also significantly interacted with distress, for children with low parental avoidance, as distress increased, errors in specific questions decreased. For children with high parental avoidance, as distress increased, errors in specific questions increased.

Repeated Interview

Shrimpton and colleagues (1998) tested children's memory at 2-7 days and again after 6-8 weeks, or only at 6-8 weeks. Children gave more correct responses if they were interviewed twice, than those only interviewed at 6-8 weeks. This was the only memory accuracy change.

Merritt and colleagues (1994) tested children's memory immediately after VCUG and again after 6 weeks. At the second interview the proportion of children's memory for features of the VCUG was not significantly different to the proportion recalled in the first interview.

Delay

Shrimpton and colleagues (1998) found no significant difference in the memory accuracy for children who were asked about their venepuncture 2-7 days or 6-8 weeks after. Goodman and colleagues (1997) found no significant difference in the memory accuracy for children asked about their VCUG between 6 and 27 days after. Salmon and colleagues (2002) did not specifically assess the impact of delay, however they interviewed all the children in their study, 6 months after having the VCUG, whereas the rest of the studies all interviewed within 2 months post stressful event. Their results that indicate no significant relationship between age and memory accuracy, or stress and memory accuracy may be influenced by the impact of delay.

Knowledge

Goodman and colleagues (1997) found that children who had more knowledge of the VCUG procedure provided more correct information. Baker-Ward and colleagues (2015) found that the extent of discussion with parents also predicted proportion of

correct information in open-recall. Vandermaas and colleagues (1993) found that parental preparation for dental treatment did not significalty influence memory accuracy.

Repeated experiences

Merritt and colleagues (1994) and Salmon and colleagues (2002) found that previous experiences of VCUG's were unrelated to memory accuracy.

Location

Vandermaas and colleagues (2002) and Shrimpton and colleagues (1998) found the impact of location of memory interview was unrelated to memory accuracy.

Temperament

Merritt and colleagues (1994) measured two aspects of child's temperament and found that children's adaptability (the ease of adjustment to new situations) and approach-withdrawal (tendency to approach new situations) correlated positively with proportion of correct recall and correlated negatively with technologists' judgements of fear in the VCUG. This suggests that children who were more adaptable and approaching were less stressed and recalled the VCUG more accurately.

Alexander and colleagues (2002) found no association with child temperament and memory accuracy.

Cognitive Factors

Alexander and colleagues (2002) assessed children's cognitive inhibition and found children who were more inhibited provided more errors in free recall.

Other Factors

Salmon and colleagues (2002) found that children who talked more about the VCUG as it was happening, provided more correct items in free recall. Whereas children who presented as more distracted recalled a lower proportion of correct information. Their

measure of receptive language was not found to significantly relate to memory accuracy.

Vandermaas and colleagues (1993) assessed several factors including the number of other children in the dental office, the frequency the child had seen the dentist in last year, the emotional quality of past experinces with dentist in last year and the children's reactions to unfamiliar situations; they were all unassociated with memory accuracy.

Discussion

Overall, 10 variables were examined at least twice across the 8 studies. 2 variables were examined by all the studies and the majority of other variables were examined by only a few research studies.

4 of the studies found older children were able to recall more correct information than younger and 3 studies found that younger children made more errors than older in some question types. These findings were from studies that used different categorisations for grouping children's ages, so conclusions show only a general trend of memory accuracy improving with age. These findings are consistent with previous research that age predicts memory accuracy (Ornstein et al., 1997). However, 4 out of the 8 studies supports research that advises even very young children can recall accurate information (Flvush et al., 1991). 3 of these 4 studies found no difference between memory reports and age, suggesting that younger children are no better or worse at recalling stressful information that older children. Furthermore, 2 of the 4 studies made reference to the data indicating even the youngest children (age 2) in their studies were able to recall some information about stressful events, and this was accurate.

Previous findings regarding the influence of stress on memory accuracy are mixed, and that in part is reflected in the results within this review. Out of the 8 studies 4 found no effect of stress on memory performance and these studies covered the range of stressful event types included in this review. In the two experimental studies using a control, stress was associated with reduced errors in recall (Shrimpton et al., 1998) and predicted correct recall in younger children (Vandermaas et al., 1993). This contradicts evidence that stress impairs memory accuracy (Peters et al., 1991, Loftus, 1979) and provides some evidence for the Yerkes-Dodson law (Teigen, 1994).

It may be expected that the VCUG event could be experienced as more stressful than venepuncture, vaccination and dental treatment due to the multiple stressful stages involved in the procedure and genital contact (Goodman et al., 1997). 2 of the 3 VCUG studies did suggest that stress reduced memory accuracy in these procedures. On the assumption that VCUG experiences are experienced as more stressful than the other events, the data that suggests children in VCUG studies had reduced memory accuracy at high levels of stress, may also be conceptualised within the Yerkes-Dodson law. A significant confounding factor to the stress data is the different tools used to measure stress that are unlikely to be measuring the same construct. For example, the observational tools may assess children's capacity to self-regulate, more than internal stress, furthermore it could be argued that the self-report measures aren't clear in what construct they are exactly measuring.

In the 3 studies that assessed parental attachment and child attachment, data for the influence of an anxious-ambivalent attachment style was varied, with children producing increased correct recall in 1 study (Alexander et al., 2002) and increased errors in another (Goodman et al., 1997). In separate analysis, not included in this review, Alexander and colleagues (2002) found that children with parental attachment anxiety also provided more errors in response to misleading questions and provided an overall low proportion of accurate responses. They suggest that an explanation for the pattern seen across studies is that children with parental attachment anxiety 'simply talk more'. However, this hypothesis was not supported by Chae and colleagues (2014) who found no relationship between anxious-ambivalent attachment style and memory accuracy.

The pattern for parental avoidance was stronger across the three studies, suggesting that children with low parental avoidance have greater memory accuracy when stressed. This pattern is reported to be consistent with adult data regarding memories for childhood sexual abuse (Edelstein et al., 2005). It is hypothesised to be associated with parents that are low in attachment avoidance attending to their children more when they are stressed, meaning the child spends less cognitive resource on self-regulation and has greater capacity to focus on what's happening (Alexander et al., 2002). It is also suggested that it may be associated with the actions of avoidant parents, for example

not spending as much time preparing the child for the medical procedure (Chae et al., 2014).

Repetition of the stressful event, interview and delay in interviewing are particularly pertinent factors when considering accuracy of children's memory in criminal investigations. This review found no effect of repeated VCUG's on memory accuracy suggesting children can recall just as well if they have experienced an event multiple times. However, given the VCUG was planned and conducted to support the child's health this finding may not be as applicable to child testimony research. Similarly, there was no significant effect of repeated interviews on memory accuracy meaning children could recall as accurately in a second interview. However, alleged victims or witnesses are rarely interviewed immediately after the event and the delays between events and disclosure can often be much longer than the 2 month delay used in these studies, hence the generalisability of the findings to child testimony research is limited (Goodman et al., 1992).

Strengths & Limitations

A strength of this review is the systematic nature of the search, the development of the search strategy made with a research librarian and use of a quality assessment. It is the only systematic review to synthesise the available data on factors associated with childhood memory accuracy in planned stressful events. Quality appraisal of all included studies was conducted, and this was done with a co-rater to enhance the reliability of the appraisals. The review also ensured there was a reliable objective measure of the stressful events to determine memory accuracy from, in an effort to reduce bias. However, this did mean there was a set of data not included in the review that looks at predictors of memory accuracy in the context of other stressful events such as unplanned medical emergencies (Peterson, 1999).

One key limitation of the study is that out of the 12 identified papers only 4 were appraised as high quality, largely due to the lack of reporting of ethical considerations within the research. Secondly, within the 8 studies examined there are many variables explored as predictors of memory accuracy, of which only a few are looked at repeatedly meaning that a lot of the data presented within this systematic review is from a single or only a few articles, reducing their generalisability. Despite this there were

also factors that have been commonly assessed in other research studies such as questioning style and use of rapport that were not examined in this review (Brubacher et al., 2019; La Rooy et al., 2015). An additional limitation to this review is that selection of the studies and data extraction was conducted by one reviewer, increasing the likelihood of missed data.

Implications and Conclusion

This review systematically examined the factors that influence memory accuracy in planned stressful events, that have an objective measure of the event to determine accuracy from. Similarities are thought to exist between abuse experiences and the medical procedures used in the studies reviewed (Ornstein, et al., 1997), making them useful to inform child testimony research. The key factors that were found to influence memory accuracy were age, stress and attachment style. There is some evidence that older children are more accurate, but young children are still able to recall some information of past stressful events accurately. There were mixed findings for the influence of stress on memory accuracy, and insecure attachment styles were generally found to lower memory accuracy.

Much of the research examining the factors effecting children's memory accuracy for planned stressful events is used to support professionals in judicial contexts to support children to provide more accurate testimony (Benedek & Schetky, 1986). This systematic review only found 4 studies that looked at memory accuracy for a stressful event which were deemed to be of high quality. Given this literature is used to inform protective procedures to support the more vulnerable children, it is surprising there are so few high-quality research studies. Most of the research studies included in this review are also approximately 20 years old. It is hence advised that more high-quality research is produced to build on the existing evidence base.

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Chapter 2

A New Approach to Investigative Interviews with Children: What can we Learn from the Interviewers?

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Plain Language Summary

Title: A New Approach to Investigative Interviews with Children: What can we Learn from the Interviewers?

Background

When children have been victim of a crime, they are usually asked about it by a Police Officer and a Social Worker. The Police Officer and Social Worker who talk to the child are called Investigative Interviewers. It is really difficult for children to tell adults about horrible things that have happened to them. They might not know what to say or feel too embarrassed or ashamed to talk about it. Being asked questions by Investigative Interviewers can also be quite scary and intimidating. Professionals in Scotland have created a new model for Investigative Interviewers to help them make it easier for children to talk about what happened to them, and to make the conversation less frightening. This new model is called the Scottish Child Interview Model (SCIM).

Aims and Questions

This research study wants to learn about the Investigative Interviewer's experience of talking to children about the crimes they have suffered. The study wants to find out what it is like to use the SCIM model, and how it effects the conversations they have with children.

Methods

Any Investigative Interviewer who is trained in the SCIM model and has been interviewing children for at least 6 months was asked to take part in this study. In total 7 people volunteered to take part, they were all Investigative interviewers who were trained as Social Workers, no Police Officers agreed to take part.

Recruitment

All Investigative Interviewers that are trained in SCIM in Scotland were emailed by a member of staff in the SCIM training team. Each person was asked to read about the study and think about whether they could take part.

Design of study

Reflexive Thematic Analysis was used in this study to analyse the data. This method was chosen because it is able explore in detail the Investigative Interviewers perceptions, beliefs, and experiences of talking to children (Braun & Clarke, 2022)

Data collection

The main researcher interviewed the 7 investigative interviewers for about an hour. These interviews were recorded and then transcribed onto paper to be analysed.

Ethical Issues

To make sure that no one could find out which children the Investigative Interviewers were talking about in this research study, they were told not to mention any of the children's names, where the children live or the names of their family members. They were also asked not to talk about the details of the crimes that the children had told them about.

Main Findings and Conclusions

The Investigative Interviewer's shared that they believe they can help children talk about difficult things, and at the same time make it a positive experience, not one that is scary. They said that when talking to children, making sure they feel safe and understood are really important. They also spoke about how important it is for them to reflect on their interviews and have evaluations so they can continue to learn from their mistakes and become better Interviewers.

Abstract

Investigative Interviews are used to elicit children's disclosures of alleged abuse. A new model of interviewing children has been designed in response to the growing evidence base on how best to interview children, called the Scottish Child Interview Model. It incorporates a trauma informed approach and introduces the 'Plan for the child's needs.' This study aimed to explore how this novel approach has impacted Joint Investigative Interviewer's perceptions, beliefs, and experiences of conducting Investigative Interviews. A Thematic Analysis approach was used with 7 participants. Three main themes were generated: 'Quality interviews: "children seem to feel comfortable to make disclosures"; 'Self-awareness: "I've just, realised, quite, how, complicated a, task it is" and 'Attunement: "connect and consider the child through the whole process" for which two sub themes were generated: 'Alignment: "it's just about...always remembering the trauma" and 'Containment: "they feel secure and they feel safe". The findings have significant implications, they indicate a need for further research on the 'Plan for the Child's needs and a trauma-informed approach to interviewing, to support children to give quality evidence in a manner that supports their recovery.

Introduction

Investigative Interviews

Investigative interviews are conducted when a child is suspected to have been victim or witness to crimes such as physical, emotional, and sexual abuse. They elicit the child's account of alleged events to determine whether they need protection and gather evidence to establish potential crimes (Scottish Government, 2022).

Facilitating and enabling children's disclosures of abuse are vital to protect them from continued abuse, and to safeguard other children at risk of victimisation (Pipe, et al., 2007). Early life trauma can have extensive impact on biological, psychological, and social aspects of development in children (Putman, 2006). It is related to higher rates of alcohol and substance abuse, self-harm, mental health difficulties, early pregnancy, obesity, sleep difficulties as well as future victimisation and contact with criminal justice systems (Mehta et al., 2021).

Factors Affecting Quantity and Quality of a Child's Disclosure

The journey to disclosure is often fraught with barriers, children may fear disbelief, hold conflicting feelings toward the abuser, have a lack of support from adults and fear real or imagined consequences for the abuser and for themselves (Alaggia et al., 2019; Morrison et al., 2018). Children may also experience feelings of guilt, shame or embarrassment following abuse leading to reluctance and delays in sharing their experiences (Alaggia et al., 2019;) and are more likely to be distrusting of adults (Lahtinen et al., 2022). Consequently, children experiencing early life trauma struggle to build alliances with professionals, influencing their help seeking behaviour and capacity to effectively engage with services (Lubit et al., 2003). Given these barriers, disclosures of childhood abuse remain the exception rather than the norm and when they do occur, they are often significantly delayed (McElvaney, 2015).

When children do disclose abuse, there can be significant consequences both for the child and alleged perpetrator. Ensuring the accuracy of children's disclosures is hence imperative. Research has primarily focussed on the impact of responding to children's cognitive factors, including age, attention, intelligence, knowledge and language (Brubacher et al., 2019), to support them to make disclosures and to improve the

accuracy and amount of information they disclose. The way in which Interviewer's respond to these cognitive factors influences the amount and reliability of information obtained from children. For example, their questioning style should use open-ended prompts and avoid suggestive techniques (e.g. wh- questions (*where, who, when*)) to support children to provide free recall and reduce Interviewer bias (La Rooy et al., 2015).

Best practice standards have been created as an outcome of this empirical research to promote accurate and complete narratives from children. This includes the National Institute of Child Health and Human Development (NICHD) Protocol (Orbach et al., 2000). The protocol is built upon an understanding of child development, recommended questioning styles and is designed to improve the cognitive processes in children to facilitate their free recall (La Rooy et al., 2015).

Socioemotional Factors

The focus of research has recently shifted from examining cognitive factors that facilitate children to disclose, to the socioemotional factors. In existing interview protocols there has been less attention paid on mitigating the impact of barriers to disclosure such as those described earlier. Given the distrust, reluctance, and stress that many children are documented to experience when disclosing, there has been a growing research focus aiming to understand what socioemotional factors may support children to speak to Interviewers.

Several socioemotional factors have been explored to examine whether they support children to make disclosures and if they influence the amount and accuracy of information in these disclosures. Building rapport between Interviewer and child is a socioemotional factor suggested to facilitate communication with children to reduce reticence, anxiety and stress and improve children's engagement (Saywitz, et al., 2015). The concept of 'interviewer supportiveness' is thought to similarly help children overcome mistrust and reduce stress to facilitate their disclosure (Saywitz, et al., 2019). Concerns have been raised that supportiveness and rapport may induce suggestiveness into children's reports and reduce the credibility and usefulness of children's testimony (Saywitz, et al., 2015). However, in Saywitz et al. (2019) recent systematic review,

children's accuracy was found to be improved when Interviewers provide noncontingent support.

For some children, investigative interviews are more than anxiety-provoking or stressful, they can be re-traumatising (Milojevicj et al., 2016). This can occur when memories of the traumatic event are triggered, for example by an event that mirrors past traumatic experiences, such as a sense of powerlessness or intimidation in an interview context (Hamblen & Levine, 1997). This may exacerbate any feelings of guilt, shame or embarrassment associated with the traumatic experience and increase reluctance. To avoid re-traumatisation in investigative interviews and support the recovery of children in the pursuit of gaining accurate disclosures, a trauma informed approach to interviewing may help, defined by Fallot & Harris's (2001) as:

"Trauma-informed systems and services are those that have thoroughly incorporated an understanding of trauma, including its consequences and the conditions that enhance healing, in all aspects of service delivery."

A trauma-informed approach equips investigative interviewers to avoid retraumatisation in interviews and support the recovery of children in the pursuit of gaining accurate disclosures. This involves making an interview predictable, collaborative, and empowering, whilst recognising the signs of re-traumatisation and adapting accordingly to support their recovery (SAMSHA, 2014; McKenna & Holtfreter, 2019).

Scottish Child Interview Model

In Scotland Investigative Interviews are conducted jointly by a specially trained police officer and social worker and are referred to as Joint Investigative Interviews (JII). The JII is recorded and can be used as evidence in chief in any subsequent criminal proceedings. In response to the evidence base described above, a new approach to JII has been designed in Scotland and is currently being piloted. The approach is informed by both the cognitive and socioemotional factors known to support children to disclose and improve the amount and accuracy of information given, whilst supporting their recovery.

The approach is referred to as the Scottish Child Interview Model (SCIM). It uses a revised version of the NICHD protocol, as well as incorporating a more extensive training programme, a planning tool and ongoing supervision and performance feedback. The SCIM training consists of 5 modules, the first module is 'Child Development and Trauma Informed Interviewers', which aims to equip JI interviewers to recognise and respond to the needs of the child in line with their cognitive, emotional, relational, and social capacities, whilst using trauma informed principles. It also focusses on recognising the potential impact of vicarious trauma on interviewers and when and how to find support. The other four modules cover skills required for creating a topic identification plan to inform the interview; learning how to use the Plan for the Child's needs (see below); and how to evaluate and critically reflect on their practice to continue skill development.

The model incorporates a new tool 'The Plan for the Child's needs' (Appendix 11) which asks Interviewers to identify through a range of sources (school and health practitioners etc) what the child's prior experience of trauma is, how this may affect them in interview and how Interviewers plan to respond to this. The plan also encourages interviewers to consider the cognitive factors that may affect children's accuracy and reticence, as outlined earlier. This helps interviewers agree on suitable questions, proactively plan strategies to support the child to give best evidence and avoid re-traumatisation.

The Present Study

The Scottish Child Interview Model for Investigative Interviewing incorporates the evidence base on cognitive and socioemotional factors to support Interviewers to consider the range of factors that support children to give best evidence. The approach is novel and involves a change in practice for professionals at the frontline of investigating and preventing serious offences against children. It is hence important to develop an understanding of how the application of this new approach impacts JI interviews.

The Interviewer's own beliefs and insights are not often sought in this field of research and when they are it is often through questionnaires, meaning an in-depth understanding has not been effectively explored (Magnusson et al., 2020). This study

seeks to develop an understanding of how the application of the SCIM impacts the JI interviews from their perspectives.

There has already been extensive research on the types of question styles that support children to accurately disclose and evaluations of NCIHD protocol (Lamb et al., 2018). Therefore, this research study focuses specifically on developing an understanding of how the novel application of a trauma-informed approach and the planning tool has impacted the JI interviewer's perceptions, beliefs, and experiences of conducting JI Interviews.

It specifically aimed to:

- 1. Explore the JI Interviewer's experience of the interviews following the training and use of the planning tool.
- 2. Understand JI Interviewers perceptions and beliefs of how the training, and the use of the planning tool has affected interviews.

Method

Design

A qualitative approach was deemed most appropriate for this study, given the research aimed to capture an in-depth understanding of JI Interviewers perceptions, beliefs, and experiences. Thematic analysis (TA) was chosen for its systematic method of theme generation in a bottom-up manner from descriptive data, to allow a rich understanding of the data in the absence of an existing evidence base (Braun & Clarke, 2013). The essence of the research question in this study was deemed fitting with a reflexive TA approach as described by Braun & Clarke (2022). Comparable research studies have also utilised a similar TA methodology (Magnusson et al., 2020).

The views and perspectives of this sample are within a very specific context (the JI interview) for which there is little existing understanding of, hence the conceptual underpinnings of the TA approach in this study assumes an inductive, semantic and critical realist stance. This meant that development of themes was primarily grounded in the explicit content of the data and not in existing concepts or researcher assumptions, and the analysis reported data within a lens of assumed reality. In

recognition that the researcher always brings their own subjectivity into the process of coding and theme generation, the aligned practice of reflexivity was employed to enable quality analysis (Braun & Clarke, 2022).

The research aims focus on the novel application of the trauma-informed approach and use of the Plan for the Child's needs in investigative interviews specifically. However, in acknowledgement that it may be difficult for Interviewers to separate the different features of the SCIM, discussion regarding the influence of questioning style and episodic memory training in interviews was not actively discouraged if independently introduced by Interviewers.

Sample & Recruitment Procedure

Seven JI Interviewers participated in this study, all of whom were social workers. Recruitment processes are described below, no Police Officers were recruited.

JI Interviewing is a specialist role that consists of two different professional workers (Police Officers or Social Workers) performing the same job but with slightly different roles. JI Interviewers are trained together, but have different pre-existing knowledge backgrounds, experiences, and operate within different work cultures. As such, the pool of potential participants was not expected to be homogeneous. When heterogeneity is anticipated, a larger sample size is advised (Guest et al., 2006), given this study had a small potential pool sample of 37 Interviewers (15 Social Workers and 22 Police Officers) it was anticipated there would not be a big enough sample to permit use of a heterogeneous sample. It was planned to sample from both groups, and in line with Braun & Clarke's (2013) recommendations, a small range of 6-10 Police Officer and Social Work participants were planned as an appropriate and practical sampling method within this research study.

Inclusion Criteria were discussed in collaboration with a JII training team staff member and the Academic Supervisor. It was agreed that all JI Interviewers who had completed SCIM training, had passed relevant assessments and had a minimum of 6 months practicing SCIM would be included. This would ensure they had adequate experience to reflect on in research interviews.

A purposive sampling technique was adopted, the entire population meeting the inclusion criteria was identified and contacted by the JII training team staff member.

All 15 Social Workers and 22 Police Officers were emailed details about the study requesting their consideration of participation. The email contained a research information pack describing the purpose, confidentiality, risks and benefits and procedure of the study (Appendix 6). All participants interested in the study emailed the lead-researcher directly and were given the opportunity to ask questions to help them consider participation. Consent forms were then distributed by the lead-researcher (Appendix 7). The recruitment email was sent out on two separate occasions in March 2022. All seven Social Worker JI Interviewers were recruited at this stage.

In an effort to recruit participants from the Police workforce, the lead researcher met with a JII training team staff member from the Police force on three occasions to discuss recruitment progress. It was thought that the Police workforce's command and control management structure may be a barrier to individual Police Officer's volunteering their participation. To manage this, they discussed the purpose of the study with managers of the police officers' teams and reiterated that approval for the study was given. The recruitment email was recirculated a third time with the addition of a personal address, a Police stamp, and was sent from a JII training team staff member from the Police force in April 2022. No Police Officers were recruited in the study, it was hypothesised that this may largely be related to staff absences at the time of recruitment.

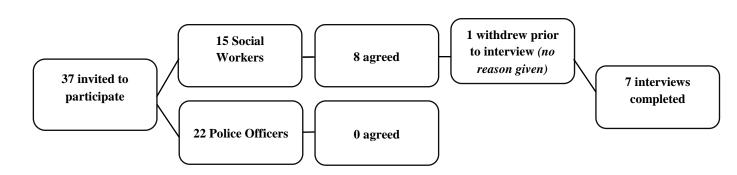


Figure 2. Recruitment Flow Chart

Table 4 describes the demographic details of the participants included in this study. To maintain the anonymity of the Interviewers, the area participants were recruited from and the number of months they have practiced SCIM are not included as this would enable participant identification. Generally, prior to completing the SCIM training,

most of the participants had completed a previous 5 day training course called the Step-Wise model and had practiced this model of interviewing children for a few years. The Step-Wise model focuses on teaching questioning styles that improve the cognitive processes in children to facilitate their free recall in investitive interviews. Under this model of interviewing JI Interviewer's maintained their roles as Social Workers or Police Officers in their local authority and conducted JI interviews infrequently.

The Scottish Child Interview Model training is 5 weeks long spread across 6 months. When JI Interviewers are SCIM trained, they leave their roles in their local authorities and become part of a full time specialist team exclusively working in child investigative interviews. On average the JI Interviewer's practice approximately 1 to 4 interviews per week under the SCIM model and had done this for 6-26 months before participating in this research.

Table 4. Participant Details

Gender	Received previous JII training to SCIM
Female	Yes
Female	Yes
Female	Yes
Female	No
Female	Yes
Male	Yes
Female	Yes
	Female Female Female Female Female Male

Ethics

Ethical approval was obtained from the College of Medical, Veterinary and Life Sciences, University of Glasgow (200210054). The ethical principles outlined by the British Psychological Society (BPS) Code of Human Research Ethics (2014) were adhered to throughout the research.

Written approval and permission to recruit JI Interviewers was sought and provided centrally from Police Scotland, and from five Social Work local authorities which are not named to protect anonymity of participants.

This study involves a small number of newly trained JI Interviewers involved in interviewing a very small population of children making them potentially identifiable. To mitigate risk of breaking confidentiality, prior to interviews and in the information pack participants were reminded not to discuss identifiable information of children in recorded interviews. This included children's names, ages, location and specific alleged abuse descriptions. All transcripts were de-identified, to respect the right to confidentiality of children discussed.

It was expected that participants could experience some emotional or psychological discomfort during interviews when discussing investigating childhood abuse. As JI investigators it was anticipated that participants would be familiar with exposure to distressing topics and have resources of support available to them. To minimise risk of harm the lead researcher asked whether participants would like to take breaks, suspend or end their participation at any point. After the interview each participant was given a debrief sheet signposting to relevant places of support within their organisation and naming a pre-identified person within their organisation that they were encouraged to reflect with post interview if necessary. This debrief sheet was created with the JII training team staff member. All interviews were conducted by a Trainee Clinical Psychologist who is experienced in identifying early signs of distress and responding appropriately.

Interview Procedure

Prior to interviews participants were provided information about the purpose of the study and a copy of the interview guide to familiarise them with the research aims. The researcher used individual semi-structured interviews with several open-ended prompts to enable an in-depth exploration of participant's views.

The interview topic guide (Appendix 8) was constructed in liaison with the Academic Supervisor to ensure that it would generate relevant and meaningful discussion to explore the research questions. A pilot interview was conducted to help evaluate

whether the design of the topic guide facilitated rich and quality data. This was conducted with a JII training team staff member and not included in the analysis. Following this the wording of one question was changed to increase the clarity and understanding of the question. This was the only revision made before using the interviews in the sample.

In line with a reflexive approach to TA, the goal within interviews was to be "on target whilst hanging loose" (Rubin et al, 1995, taken from Braun & Clarke, 2022) allowing adequate exploration of topics brought spontaneously by participants, whilst gaining indepth understanding of data 'on target' to the research question. The first three interviews were discussed and monitored with the Academic Supervisor to ensure interviews were rich and 'on target'.

The option of in-person and remote interviews were given to participants in recognition of Covid-19 virus spreading concerns. All participants opted for interviews conducted via Microsoft Teams. Participants joined interviews from their place of work in an undisturbed room. Interviews lasted between 68 and 75 minutes, excluding time to discuss questions and set-up at the start and debrief at the end. All interviews were audio-recorded via the record function on Microsoft Teams and transcribed verbatim by the lead researcher. Once audio files had been transcribed, checked and analysed they were destroyed.

Data Analysis

Thematic analysis as described above was used to analyse the data, following Braun and Clarke's (2013) five step process for each interview (see *Figure 3*).

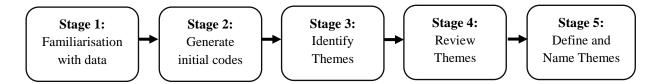


Figure 3. Five phases of TA (Braun & Clarke, 2013)

Stage 1 involved familiarisation of data by the lead researcher through listening and transcribing the audio recordings and checking the accuracy of the transcriptions by listening again. Stage 2 involved complete coding of all interesting and relevant data within the transcripts in a systematic manner. This was completed individually by the

lead researcher, highlighting extracts of data and giving a code to it in the margin of the transcription (see Appendix 9 for an example). The Academic Supervisor independently coded a section of 1 transcript, this was then discussed and reflected upon to encourage a greater depth of reflection and rigor to coding. Codes were collated in a spreadsheet with all the instances of text that the code related to underneath each code. Codes were then refined to ensure they were informative and distinct to each other.

Candidate themes were generated by reviewing codes and the collated textual data in a model of pattern-based analysis, conducted in an iterative manner. The lead researcher identified which concepts, that were meaningful to the research question, occurred across all or at least 5 transcripts by reviewing which codes had overlapping meaning or similarity. The codes that tied together with a central organising concept were combined to form themes. A thematic map was constructed following this and the themes were revised by iteratively going back to the coded and complete date set to check they capture the data's meaning. Themes were discussed with The Academic Supervisor on three occasions and themes were re-drafted and refined to ensure themes were coherent, meaningful, and distinctive. Once the definitions of themes were clear, the entire data set was checked against the thematic map to inform final refinement of themes.

Reflexivity

Throughout the process of data collection and analysis, a reflective journal was kept by the lead researcher in acknowledgement that the reflexive TA methodology does not view researcher subjectivity as something that can be controlled, but used to inform indepth, nuanced insights (Braun & Clarke, 2022). The reflective log was used to think upon potential biases, personal values and attitudes, the interview context and participant and researcher mood (see Appendix 10 for an example). These reflections were incorporated and addressed in research supervision.

Results

Three themes and two subordinate themes emerged using reflexive TA (see *Figure 4*).

The theme 'Quality interviews: "children seem to feel comfortable to make disclosures" reflects the Interviewers' belief that they can interview children in a way

that supports their recovery without forfeiting the quality of evidence, and in their experience, children do provide best evidence when the interviews are experienced positively. The theme 'Attunement: "connect and consider the child through the whole process" depicts that attending to and responding to children's needs is perceived as a central aspect of interviewing, and one that supports children to provide best evidence and experience interviews as positive. The sub-theme 'Alignment: "it's just about...always remembering the trauma" directly relates to the theme of attunement. Alignment is the stance Interviewer's take to understand the child's experiences of trauma, to facilitate interviews that are not re-traumatising. By considering how the child's world-view is shaped by trauma, interviewers are then better able to attune to their needs in interview. Similarly, the sub-theme 'Containment: "they feel secure and they feel safe" links to attunement. Attunement is depicted to help facilitate a sense of containment in children, as when children are listened to, and a sense of safety is created through understanding and responding to their need's, children feel safe to tell their story. The theme 'Self-awareness: "I've just, realised, quite, how, complicated a, task it is' reflects the Interviewer's perceptions of how challenging the task of Interviewing is and how the practice of reflection and evaluation supports them to be aware of their skill development and be considerate Interviewers.

The findings are reviewed within a narrative analytical approach, alongside excerpts from the transcriptions presented to illustrate the themes.

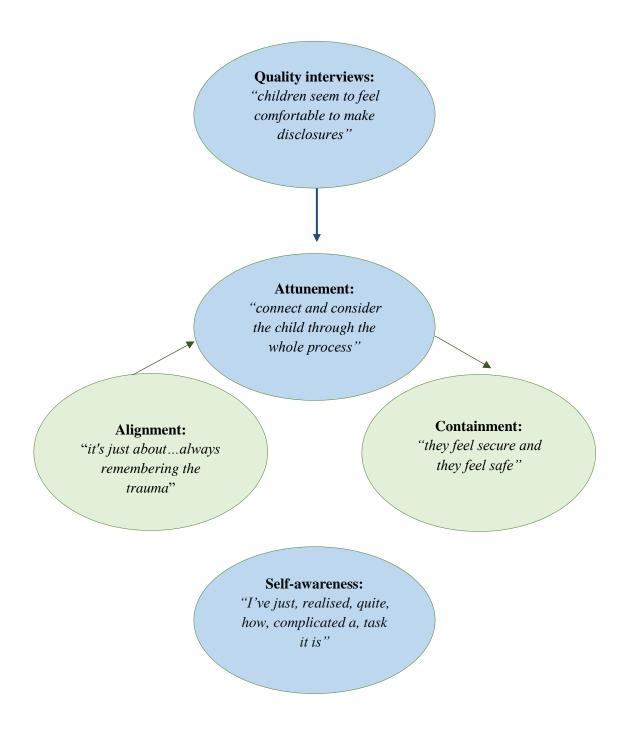


Figure 4. Map of Themes and Subordinate Themes

Quality interviews: "children seem to feel comfortable to make disclosures"

This theme reflects the duality of the Interviewer's belief of what quality in an investigative interview is. Across the transcripts, a quality interview is described as being able to gain 'best evidence' in the form of free narrative, and in a manner that promotes the child's recovery. These two facets of quality are not depicted as being mutually exclusive, but as complementary to one another.

For most Interviewers these two aspects of quality were perceived as being the joint goal of a quality interview and as elements that are achieved in tangent:

Beth: "our goal is to enable the child to give the best account, of what what's happened to them...and...not being a traumatizing experience and never want to go through that, 'so I'm never gonna tell anyone again', you want them to be able to come and talk (right) and feel ok."

Lynne: "for me its getting the child to tell their story and, tell their version of the events, in as much detail as they can, so that a conviction can be made, (mmm), so that child doesn't have to go back, back into that traumatic experience that they've already explored with myself... and for that child to leave the interview room saying, I'm a happy person, I've told you my story and I'm quite happy"

Millie: "at the end of the day its the results...the level of information gained, is enough to like prosecute but also the child is having an experience of something in like a trauma informed way, where they're not, leaving us feeling traumatised, and I'm feeling pretty confident that children are...going away, feeling good, about it"

For Neil quality of disclosure, rapport and a positive experience for the child depend on each other, in his experience rapport is essential to enable quality evidence and to a positive experience:

Neil: "if they go into an interview and they can't build their rapport, nine times out of ten when it gets to disclosure, there's no, it's not gonna be the same level of quality as if you, if you can build that rapport...now it's more, focused on making it the best possible experience for the child and at the heart of that is the rapport with the Interviewers"

Millie and Kate express a similar belief that a positive experience of the interview often directly impacts the child's willingness and ability to recall memories for evidence:

Kate: "if you, make them feel that they're kind of backed into a corner, you know they might tell you, some bits of it but...just trying to, build that trust and relationship with the child, which is only gonna help, both the interview but also the child's experience of the interview... I think that often will, lead to them being able to tell you much more information about things"

Millie: "I mean pretty much all...the children seem to feel comfortable to make disclosures... when children are erm, you know in a in a state of like high stress, they're not gonna be able to recall and remember like the same level of information as if they...feel secure and comfortable"

Attunement: "connect and consider the child through the whole process"

A central view expressed throughout the narratives is the need for Interviewers to be perceptive to what the child is feeling and able to interpret signs that indicate how well the child is managing the interview, both emotionally and in terms of how well they are understanding what is being asked of them. This perception was described as something that requires the ability to pay focussed attention on the child, understand their behaviours and emotional cues and remain present with them during the interview. Interviewer's descriptions of this process illustrate a picture of attunement between Interviewer and child.

Neil: "it's really getting a sense of the child and just making sure they are, they're at the centre...and more err chance to to connect and consider the child through the whole process"

Kate: "you, need to be, very mindful of kind of watching the child of how they are responding to, certain questions and how they're managing, the interview... picking up when...they're finding. . difficult parts of the interview and discussing that with them and acknowledging it with them."

Kate evidences this attunement through her descriptions of attentiveness to the signals of the child's internal state in the interview. Her description reveals how attunement with the child is about recognising and understanding their needs, but also responding and validating them. She depicts this as an interactive process, one that is done 'with' the child revealing how attuned interviewers are actively sharing the message to the child that they are understood and valued.

Beth: "you're observing that child the whole time you're observing, you know, looking at nonverbal sort of, behaviour...not all children can articulate those feelings or they'll just say, 'fine', but, their body's not telling you fine and their language is not telling you fine"

Beth's perspective captures the interplay of attentiveness to the child and interpretation of their emotional cues. It points to the Interviewer's need to have a sense of who the child is, to accurately translate and respond to their needs and to help the child to feel they are known by the interviewer and that their well-being is held in mind throughout the interview process.

For all Interviewers the plan for the child's needs was highlighted as a key tool that helps develop this level of understanding of the child to help them be attuned to their needs:

Heather: "I think the plan for the child's needs... means I'm investing that time, I'm gathering that information, I'm getting to know this child, I'm getting to know that that, sometimes when they are, they're anxious, they might start fidgeting, they might start playing with the hair, so me going into that interview I'm then looking out for that"

Jane: "I think [the plan] helped me as an Interviewer, recognise when young people are perhaps, struggling a little bit, (mmhm) and it might be things that I wouldn't have noticed or wouldn't have seen as being an indicator that, you know, things aren't sitting quite right for them"

For Heather and Jane using the plan for the child's needs informs them specifically how each child may behave and display distress, to aid their attunement with the child. Their

descriptions reveal how the plan is relied upon to help them be vigilant to behavioural cues in the interview and has supported them to be confident in their accurate interpretation of the child's behaviour in the interview.

In response to the Interviewer's having a better understanding of the child, some Interviewers suggest that this knowledge of the child's needs helps the child to feel held in mind and supported within the interview process:

Beth: "you didn't have time to plan...whereas now you do...I feel much more prepared, (yeah) for the, for the child (uhuh) I feel like I know the child I'm coming to see (yeah) errmm, hopefully and I'm using that word that the child might then feel that that I'm gonna look after them in that process"

Neil: "we've considered everything that's gonna impact on the child because they'll come and they'll feel more confident that we have prepared the interview for them, (ahah, yeah) so they, they'll, feel the impact of that"

Attunement is consistently depicted as a process that requires the Interviewer to be present with the child. A secondary benefit of the plan appears to be the freeing up of mental space, allowing Interviewers to focus their attention on the child. By having an informed sense of who the child is, Interviewers are not having to work out 'blindly' how children are feeling and have more mental space to focus their attention on the child and help them to feel held in mind.

Lynne: "during that interview you're thinking about like how we we're going to approach this, without upsetting the child so your thinking process is much slower, your thinking isn't as fast, it's slower because you're thinking right ok how am I going to get this information, how am I going to ask it, so you're not only feeding through kids body language and their eye contact and movement in the body movement, your brains ticking as well only to make sure you're staying in that moment"

Lynne reflects again the picture of attunement as being present with the child and responding to their needs, but she highlights that attunement can also help children to be able to talk to Interviewers and provide best evidence.

This message that being attuned to the child, and appropriately responding to their needs in the interview as key to enabling children to engage and share their story is found consistently throughout the narratives,

Millie: "if children's needs are responded to, in terms of, them feeling like . . . distressed or stressed ... you're giving children the best ability ... for them to to try and like access memories and ... to share information"

Heather: "keeping that child as your focus ... focusing on ... what's best for them you're ... gonna get that, I always say like reciprocity"

Alignment: "it's just about...always remembering the trauma"

This theme reflects the stance that Interviewers take to understand children's experiences of trauma and understand how their world view is shaped by their experiences. This perspective enables them to tell unfamiliar adults their story, within the unique interview context. The children being interviewed are described as having harrowing experiences that they have often not told even their closest caregivers, yet in the context of the investigative interview they are expected to tell a stranger:

Millie: "a lot of children that are coming through are talking about really harrowing upsetting things for them which are...really traumatic experiences"

Heather: "she already came with, like, lots of other trauma in her life in terms of her, her, erm, her upbringing, err experience of being parented and lots of other things"

Kate: "often the kids that we interview are the type of kids are already open to social work and have already had, you know, significant trauma, throughout their lives"

Lynne: "any kind of event that's been traumatic to them or erm they've been subjected to that's going to cause them traumatic experiences in their future life that's the child that we interview"

Alignment refers to the Interviewer's need to hold this understanding of the experiences and trauma that the child brings to the interview, and to conduct interviews in a manner that reflects that understanding.

Neil: "you're not just meeting a child off the bat and just speaking to the child, you're considering what that child's experienced in their whole life and how that could impact on them, during the interview"

Kate: "it's just about...always remembering the trauma... if you didn't have that as a base, it would just end up, kind of, as an experience that was just more traumatizing for them, (right) which will lead to less kids wanting to speak to us"

Kate's comment reflects how maintaining an understanding of the child's world view and aligning themselves with their experiences, is central to helping children engage and talk to Interviewers in a way that is not re-traumatising.

Throughout the transcripts Interviewers demonstrated how their understanding of the child's experience of trauma led them to incorporate steps to actively inverse the feelings that are commonly triggered during abusive experiences (such as powerlessness or intimidation). Beth for example describes the efforts to empower the child being interviewed to reduce potential feelings of intimidation:

Beth: "it's to empower them...I'm thinking of one interview where we went and ermm there was a police officer, quite a tall guy, (yeah) ermm and there was three seats, and it was about making sure that the police officer was on the lowest seat, (right), you know, it was just a silly wee thing, but I thought (yeahh) if he's sitting on that seat and this wee one who's [Age X] is coming in, he's gonna be, you know, so we made the police officer sit on the tiny seat"

Similarly, interviewers consistently talk about the importance of ensuring the child is choosing to be interviewed and not being forced to engage if they don't want to:

Lynne: "it's about the child, it's it's their choice, it's their choice whether to speak to me, it's their choice whether they want to engage with me...sometimes a kid just doesn't want to do it, and that's, you just got to go with that"

Alignment with the child enables better assessment during the interview, as the child may have developed different beliefs about events normally considered as traumatic, and become be de-sensitised or normalised to abusive behaviours:

Jane: "goes back again to interpretation of what is traumatic for this young person...for one person, you know...a slap, might be really, really traumatic because it's not something that they've ever experienced before, but for another young person that is perhaps getting all sorts of other behaviours, displayed out onto them, a slap might be, 'hey, I'm having a good day today'"

Jane's comment reveals how Interviewer's understanding and interpretation of children's experiences is key to providing insight into what their experiences of abuse might be, as Jane later says, it may help reveal whether an offence is 'the tip of the iceberg' of what that child is experiencing.

Within this theme, Millie reflects the idea that alignment doesn't just involve bearing in mind the trauma the child brings, but also to acknowledge the whole child's needs and, and to align themselves with the child's childlikeness:

Millie: "it sounds crazy but like you have a laugh with the children as well it's not all, gonna be focused on being, very severe and depressing although it is a horrible thing to talk about, but at the end of the day they are children too"

Containment: "they feel secure and they feel safe"

This connecting sub-theme to that of attunement is the belief that Interviewers need to provide containment to help children feel they are safe enough to share their story. The interviewers depict how this sense of safety is created through developing trust and ensuring the child feels listened to. Interviewers describe that to develop this sense of

containment, being confident in what they're doing, building relationships, providing predictability, and going at the child's pace are important factors.

Providing this containment is so important because the interviews are hugely significant events for children that require them to be deeply vulnerable:

Heather: "you're asking that child to to bear their soul to you"

Heather captures the essence of what the Interviewer is asking the child to do, the child cannot be expected to share their story with a person they don't know are safe.

Developing a sense of safety and trust with the Interviewer, facilitated by the child feeling listened to, is important:

Jane: "if they feel safe, if they feel, listened to, they're gonna be more able to, communicate with us"

Heather: "if...that child or young person, knows that they've been listened to...they can trust you, they know that you're going to do exactly what you said you're going to do, so I might actually tell you the, the most, errr, my most inner, difficulties and secrets and things that I've had to keep to myself for a very long time"

In Heather's description, the importance of being consistent and demonstrating that the child's voice is being heard are highlighted as mechanisms to develop the child's trust towards the interviewer. Heather's description of how this might lead a child to decide to tell the Interviewer their story, evokes the impression that children are often unfamiliar with adults being consistent and trustworthy. Her depiction suggests that key to building trust with the child, is demonstrating behaviours that emphasise the Interviewer as unlike the perpetrator and somebody who is safe.

Interviewers also commonly refer to rapport as being a key mechanism to help develop the child's sense of safety and trust. Rapport is depicted as a way to help children become familiar with the Interviewer, and to give them the opportunity to learn that the Interviewers are safe people to talk to: Neil: "rapport...it's about developing trust with the Interviewers...so they feel confident and they feel secure and they feel safe when...they're getting to the substantive phase"

Kate: "I think through the rapport you...just kind of building up that like I'm an ok person and like, I'm like, I'm interested in what you have to say to me, like, even if that's just about neutral topics, erm so it's I think it's just about building that trust and the relationship."

Interviewers describe going at the child's pace as being an important factor to consider when developing their sense of safety and trust.

Millie: "the first time she came in, she was just so erm like hyper aroused and almost like like startled with the situation...so we only went up to the, basically to the, end of the episodic memory training...it wasn't until like the ...second time that she was ...able to answer questions"

Lynne: "it might be that the child just needs a wee bit of time to draw, to figure out their mindset, so you give the child that time to do that"

Kate: "I think we took about seven breaks, (mmhmm) erm, which was actually led by the child and he and actually he managed to, I think he managed, to actually do the interview because of the use of the breaks, and because you could see like he would ask for a break at a really difficult time"

As part of being containing, the Interviewer must provide the impression that they are able to 'handle' the child's story. Given the 'horror' that the child's story often contains, children need to know that telling it won't lead to their emotional unravelling, but that the Interviewer will be a person who can manage it:

Jane: "giving that young person a perception that actually, you know what you're doing, you're able to contain what they're gonna share with you...they're not going to want to give that to somebody, that's not going to be able to handle it or know what to do with it"

Kate: "kids pick up, when, you're thinking, oh shit this isn't really going the way I wanted it to, and equally, maybe pick up that if, they think actually you know what she knows what she's doing, erm so I think it just gives them that sense of security, if you can go in there with a bit more confidence"

Jane and Kate highlight that key to providing the impression that Interviewers can provide containment to children when telling their stories, is professional competence and confidence.

This idea of containment leading to children feeling safe enough to share their story, is mirrored in the experiences of the interviewers. It is repeatedly referred to throughout the narratives that Interviewers are feeling more confident conducting interviews under the SCIM model. It appears Interviewers feel better contained by the safety of the interview structures placed around them, enabling them to be more confident and containing adults to the children being interviewed:

Millie: "having like the topic identification plan...having the actual, like structure of the protocol to go through and knowing that you feel it works, in terms of like having the rapport with the child and how relaxed it makes both them and you feel and, episodic memory training...I think overall like the training the model doing all the prep just makes you feel a lot more kind of confident about going into, quite highly stressful situations"

Self-awareness: "I've just, realised, quite, how, complicated a, task it is"

This theme captures how the Interviewer's perceive the task of Investigative Interviewing as complicated and how the practice of evaluation and reflection helps foster a self-awareness of their practice and supports their skill development and thoughtfulness in Interviews. Alongside this, reflection has also brought greater consideration for the impact of repeatedly hearing traumatic stories on their own well-being.

Kate summarises the practical difficulties that are faced by the investigative interviewer, demonstrating the juggle she must hold in mind when seeking a disclosure:

Kate: "there's so many variables, I think erm kind of in play and I think, erm you're constantly having to think about, how you're gonna get specific information from a child without being leading or suggestive, or, how you pose the question and how you ask and, really trying to use kind of open prompts"

Similarly, Millie reflects the impact training has had on highlighting the demands the task of interviewing involves:

Millie: "the whole experience of training...was a huge difference... I suppose like I've just, realised, quite, how, complicated a, task it is"

Across all the transcripts, Interviewers' express the value they place on the practice of reflection and the impact is has on making them more considerate in the way they talk to children in interviews:

Heather: "part of the training has been the kind of reflective side of things, and we still try really hard to kind of maintain that that side of things, III think it's really, really important that we do that and it's important (yeah) that we get the time and the space to do that"

Neil: "when I'm reflecting on an interview I can highlight ways that I could improve to ask things better, err I think, makes me be a bit more thoughtful when I'm asking a child something"

Similarly, evaluation of practice is highlighted to be valued by Interviewers as a helpful technique for skill development:

Millie: "it is like essential...if you're not doing evaluation, like I was saying, you just keep making the same mistakes, you actually have to continually evaluate yourself"

Beth: "when you watch back your videos or your recordings and you see yourself doing things and you think, oh god"

The practice of reflection and evaluation is portrayed as one that has improved self-awareness of skill level and development positively:

Jane: "I've improved, I don't know about the evidence that's come back...but certainly, I think for me it's a a self, a self-awareness or self-improvement (mmhmm) of of how I approach it"

Neil: "when I look at my evaluations and think oh, I should ask that in a different way and I'd have got a longer response, going into interviews I'm more, feeling more able and more skilled at being able to, ask them about things, but not be too direct"

Some Interviewers also reflected another impact of the training, reflection, and evaluation. They express a greater awareness on the impact of hearing the traumatic stories on themselves:

Lynne: "we're doing evaluations and we're doing the bit on our skills and expertise during the interview, but what about us as an individual? what about me? I'm not trying to sound selfish, but what about the information that is on my head?"

Jane: "we are dealing with quite, sort of significant trauma at times, (yeah) and I think the secondary trauma of element of the SCIM training really made me think about that, and think about, ok, what do we do with that."

Discussion

This study aimed to develop an understanding of how the Scottish Child Interview Model for investigative interviewing has impacted the JI Interviewer's perceptions, beliefs, and experiences of conducting JI Interviews. Three main themes emerged: 'Quality interviews: "children seem to feel comfortable to make disclosures"; 'Self-awareness: "I've just, realised, quite, how, complicated a, task it is" and 'Attunement: "connect and consider the child through the whole process" for which two sub themes

emerged: 'Alignment: "it's just about...always remembering the trauma" and 'Containment: "they feel secure and they feel safe".

Findings and Implications

Interviewers clearly illustrated their perceived relationship between quality evidence (as free narrative from the child) and a positive experience for the child in the theme 'Quality interviews: "children seem to feel comfortable to make disclosures". Their perception of a quality interview portrays these two facets as being contingent on one another. The evidence base focussing on 'quality' in investigative interviewing often provides two approaches to defining it. The first describes it as an interview that gains a detailed, consistent and spontaneous narrative (Hagborg et al., 2012). The second defines it as the inclusion of ground rules, rapport building through a practice narrative and use of open-ended questions (Benson & Powell, 2015). These definitions do not include any consideration of the child's experience of interviews, a stance which is clearly reflected throughout the literature and is summed by Robinson (2015): "the central purpose of witnesses is to obtain the accurate, relevant information needed to reach the truth of the matter. The safeguarding of child witnesses' welfare must play a secondary—though not entirely insignificant—role". This research reveals a belief that sits in contrast to the existing conceptualisations of what a quality interview is and should achieve. Of course, the Interviewer's belief of what quality is in this study, is biased by the content of the SCIM training meaning interviewers have been trained to understand and prioritise the child's experience within interviews. However, the perceptions that Interviewers shared regarding the relationship observed between the child's experience and quality of evidence given, reflect that this belief may not purely be a result of successful training. It reveals that Interviewer's perceive a real interplay between the child's experience and quality evidence, and don't believe the child's welfare should play a secondary role.

In this study Interviewers portray their perception that attunement with the child is key to supporting them to share their story. The theme of attunement interplays with the sub-themes of alignment and containment. Together they illustrate a dynamic picture of the Interviewer seeking to understand the child's world view, attuning and responding to their emotional and developmental needs to help them feel safe, and enable them to tell their story. The closest concept explored in the literature seems to be 'Interviewer

supportiveness'. This concept is not well defined within the literature but is often referred to meaning 'a form of social interaction or communication that fosters a feeling of well-being in the target' (Davis and Bottoms, 2002) that is operationalised as 'provision of warmth, smiling, friendliness, eye contact, interest, open-body posture, positive feedback, using the interviewee's first name, and so forth.' (Saywitz et al., 2019). The themes in the study do reflect the elements of Interviewer supportiveness, but their essence paints a picture of Interviewer harmony with the child, not a unidirectional provision of support that the Interviewer uses to support the child, but a relational and dynamic process.

It seems that these three themes of attunement, containment and alignment may be better understood within an attachment theory framework. In psychotherapy and attachment literature, Bowlby (1988) describes a therapist's goal as striving to 'be reliable, attentive, and sympathetically responsive' in the pursuit of providing a secure base to a patient to help them feel safe enough to explore with the therapist. The themes in this study reflect this picture of the Interviewer's endeavour to provide a secure base to the child to support them to safely share their story. Saywitz and colleagues (2019) have described their surprise that child and interviewer interactions are rarely conceptualised within an attachment theory framework and so it may be that interviewer supportiveness, as they define it, is in practice more similar to the themes in this study as described. However, in research so far these interview dynamics appear to have been conceptualised differently within the literature.

Within the themes that emerged in this study three factors were depicted as being key to facilitate attunement, alignment and containment and to enable quality interviews. These were the Plan for the Child's needs, use of rapport and the trauma-informed training. Within existing literature of investigative interviewing, the Plan for the Child's needs within the SCIM is fairly unique. The NICHD protocol has been revised to incorporate interviewer support with non-suggestive techniques within the Revised Protocol (Hershkowitz et al., 2014) which has been evidenced to help children overcome reticence (Lamb et al., 2018) and increase the children's likelihood to disclose by 14.3% (Hershkowitz & Lamb, 2020). However, there is no similar tool to the Plan for the Child's needs documented. This might be viewed as surprising given it is common practice in other professional contexts to gather information from adult's

who know a child best to develop an understanding of their needs before establishing a therapeutic relationship or conducting a mental health assessment.

Rapport was also described by the Interviewers as being a key mechanism for enabling a sense of safety and containment. Research has for decades debated whether socioemotional factors such as rapport influence the accuracy and reliability of children's memory retrieval. One recent systematic review found that despite experts' theoretical assumptions that rapport should help reduce stress, anxiety and reticence within the interview context, there is little experimental research to unequivocally support this (Saywitz, et al., 2015). The findings from this study supports literature that find socioemotional factors to have a positive impact on quality evidence as rapport, positive experience and trust are depicted to lead to more descriptive accounts (Hershkowitz & Lamb, 2020).

Within the sub-theme of alignment, Interviewer's describe the use of empowerment and choice to reduce re-traumatisation. This reflects the application of their training and is the first known research in an investigative interview approach that uses an explicit trauma informed approach at the centre of its model. Many other occupations have adopted the approach similarly for example to help children engage in learning in an educational context, to support effective substance abuse interventions and in the design of Forensic Mental Health and Intellectual Disability Services (Covington e al., 2008; Carello et al., 2015; Owens et al., 2021).

The theme 'Self-awareness: "I've just, realised, quite, how, complicated a, task it is" is interesting given previous research that finds despite a universal agreement on the facets of quality interviewing, in practice a large percentage of questions used by Interviewers are still suggestive and practice narratives and ground rules are inconsistently used. Brubacher and colleagues (2020) suggest this reflects a gap between knowledge and practice, not unique to the investigative interview context. Evidence suggests that this gap can be reduced through use of regular evaluation and performance feedback (Powell, 2008). This theme illustrates the value Interviewers in this study place on reflection and their belief that their evaluation supports their ability skill development. This suggests that Interviewers using the SCIM model may be less prone to inconsistent practice. However, this belief is established through self-report

and as previous studies have shown, low awareness of poor practice can be common and so objective analysis is needed to support the claims (La Rooy et al., 2011).

Clinical Implications and Future Research

The Interviewer's perception that a positive experience is related to the child's ability to provide quality evidence suggests that within the definitions of 'quality' in interviews there is an unjustified underemphasis on the well-being of the child in wider literature. It suggests that services should be able to consider the child's experience without fear of narrative quality worsening.

The findings have implications for the academic endeavour to establish whether socioemotional factors influence the accuracy and reliability of children's reports. They add to the evidence base that rapport is perceived to positively impact quality. There are considerable implications for the use of the Plan for the Child's needs and use of a trauma-informed approach to interviewing. Research findings suggest a tool akin to the Plan for the Child's would be valuable for use across investigative interview teams. It also recommends application of a trauma-informed approach to interviews to benefit the quality of evidence and recovery of children. The findings also suggest, in line with other research that evaluation and reflective practice are necessary to support Interviewer professional development, confidence and to support consistent practice.

The findings from this research seem to reflect an overwhelming positive view of interviewing using the SCIM model. The themes generated in this research reflect only the beliefs, perceptions and experiences that were shared across the participants; however it must be noted that there were views expressed in the interviews that were less positive. For example, some participants discussed the impact of vicarious trauma, or the pressure they experienced to get interviews done quicky. These views were not represented in the themes generated as they were not shared across enough participants, or didn't fit with the central organising concepts of the themes. Further research would be helpful to identify whether similar experiences and beliefs would be seen in a larger sample size.

Future research should explore the impact of SCIM further using statistical analysis to objectively evaluate the quality of evidence given, to see whether rates of disclosure and prosecution are impacted. It would also be beneficial to consider whether other

interview dynamics can be similarly understood within an attachment framework, and if so, to define the similarities and differences of this with commonly used concepts such as interviewer supportiveness.

Limitations

There were several limitations to this study. Interviewers frequently referred to how they perceive children to think and feel without the research exploring this directly. This is a common limitation within this research area as gaining subjective feedback from children is difficult given the power dynamic between interviewer and child, and the sensitivity of the interview. Only Social Workers were interviewed in this research. It was anticipated that Police Officers may provide some differences in their insights, hence this research does not reflect the perceptions, beliefs and experiences of investigative interviewers, limiting the generalisability of the findings to JI teams as a whole.

The Interviewers involved in this study had a varied amount of experience to reflect on, received different modes of training (some in-person some online), some had been trained in previous models of investigative interviewing and they came from different area teams with different organisational structures and priorities. This meant that participants were not reflecting on the same context of using the SCIM. The implications of this were reflected upon in research supervision

The study aimed to develop an understanding of the Interviewer's perceptions, beliefs and experiences, specifically relating to the psychologically related aspects of the SCIM training and the use of the planning tool. These however are only some of the changes that the SCIM model introduced, and Interviewers were understandably not able, or expected to, untangle the specific impacts of the different aspects of the SCIM.

Conclusions

This study provides valuable insight into the JI Interviewers perceptions, beliefs and experiences of interviews using the new SCIM model for investigative interviewing. Interviewers highlight their belief that pursuing quality evidence is not independent to supporting the child's experience and well-being in interviews. They elucidate the dynamics at play during an investigative interview. They share their perspectives and beliefs that support evidence for use of rapport, to improve quality evidence and the use

of reflective and evaluative practice to improve skill awareness and development. The findings have significant implications for the further investigation and use of the 'Plan for the Child's needs' and a trauma-informed approach to interviewing to support children to give quality evidence in a manner that supports their recovery.

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Appendix 1: Systematic Review Search Terms

PsychInfo

((life* or stress* or emotion* or medical or trauma* or distress*) adj4 (event* or experienc* or procedure*)).ti,ab. OR life experiences/ or experiences events/ or injuries/ or pain/ or accidents/ or stress/ or distress/ or medical treatment general/ or immunization/

AND

(memor* or recall* or retention or retain* or recollect* or rememb*).ti,ab. OR memory/ or forgetting/ or long term memory/ or short term memory/ or autobiographical memory/ or episodic memory/ or verbal memory/ or visual memory/ or recognition, psychology/ or retention, psychology/ or free recall/ or cued recall/ or recall/ or mental recall/ or recall learning/ or legal testimony/

Limits: Under 18 years old

Sociological Databases

(ab((life* OR stress* OR emotion* OR medical OR trauma* OR distress*) NEAR/4 (event* OR experienc* OR procedure*)) OR ti((life* OR stress* OR emotion* OR medical OR traumatic OR distress*) NEAR/4 (event* OR experienc* OR procedure*))) OR ((ti((life* OR stress* OR emotion* OR medical OR trauma* OR distress*) NEAR/4 (event* OR experienc* OR procedure*))) OR ab((life* OR stress* OR emotion* OR medical OR trauma* OR distress*) NEAR/4 (event* OR experienc* OR procedure*)))

AND

(ab((child* OR young* OR teen* OR adoles* OR preschool OR infant*)) OR ti((child* OR young* OR teen* OR adoles* OR preschool OR infant*))) OR ((ti((child* OR young* OR teen* OR adoles* OR preschool OR infant*))) OR ab((child* OR young* OR teen* OR adoles* OR preschool OR infant*)))

AND

(ab((memor* or recall* or retention or retain* or recollect* or rememb*)) OR ti((memor* or recall* or retention or retain* or recollect* or rememb*))) OR ((ti((memor* or recall* or retention or retain* or recollect* or rememb*))) OR ab((memor* or recall* or retention or retain* or recollect* or rememb*)))

CINAHL

TI ((child* or young* or teen* or adoles* or preschool or infant*)) OR ((child* or young* or teen* or adoles* or preschool or infant*)) OR (MH "Child") OR (MH "Adolescence") OR (MH "Child, Preschool") OR (MH "Infant")

AND

TI ((memor* or recall* or retention or retain* or recollect* or rememb*)) OR ((memor* or recall* or retention or retain* or recollect* or rememb*))) OR (MH "Memory") OR (MH "Episodic Memory") OR (MH "Memory, Short Term") OR (MH "Autobiographical Memory") OR (MH "Recognition (Psychology)")

AND

TI ((life* or stress* or emotion* or medical or trauma* or distress*) N4 (event* or experienc* or procedure*)) OR ((life* or stress* or emotion* or medical or trauma* or distress*) N4 (event* or experienc* or procedure*)) OR (MH "Life Change Events") OR (MH "Life Experiences") OR (MH "Invasive Procedures") OR (MH "Treatment Related Pain") OR (MH "Pain, Procedural") OR (MH "Accidents") OR (MH "Pain") OR (MH "Stress") OR (MH "Psychological Distress") OR (MH "Immunization") OR (MH "Stress Psychological") OR (MH "Wounds and Injuries")

Appendix 2: Major Research Project Proposal

Major Research Project Proposal can be found at the following web address:

https://osf.io/69et8/

Appendix 3: Ethical Approval Letter

Dr Caroline Bruce

MVLS College Ethics Committee

A New Approach to Interviewing Children, what can we Learn from the Interviewers? 200210054

The College Ethics Committee has reviewed your application and has agreed that there is no objection on ethical grounds to the proposed study. We are happy therefore to approve the project, subject to the following conditions

- Approvals from relevant social work teams.
- Project end date as stipulated in original application.
- The data should be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research: (http://www.gla.ac.uk/media/media_227599_en.pdf)
- The research should be carried out only on the sites, and/or groups defined in the application.
- Any proposed changes in the protocol should be submitted for reassessment, except
 when it is necessary to change the protocol to eliminate hazard to the subjects or
 where the change involves only the administrative aspects of the project. The Ethics
 Committee should be informed of any such changes.
- For projects requiring the use of an online questionnaire, the University has an Online Surveys account for research. To request access, see the University's application procedure at https://www.gla.ac.uk/research/strategy/ourpolicies/useofonlinesurveystoolforresearch/.
- You should submit a short end of study report within 3 months of completion.

Dr Terry Quinn	

Yours sincerely

Appendix 4: Social Work Research Request Form

Email Template 1

Subject: Reque	st for Permissi	on for Researd	ch Study with Jo	oint investigative	interviews

Dear Sir/Madam,

I am writing to request permission to undertake a research project with Joint investigative interviewers (JII) from the Social Work team in your department.

Attached to the email is an Information pack about the purpose, aims, value, methodology and requirement of Social Work for the study.

Please read this information pack and if you have any questions please contact Hannah Barnes directly at the following address:

Email:
Mental Health and Wellbeing 1st Floor, Admin Building, Gartnavel Royal Hospital, 1055 Grea
Western Road, Glasgow G12 0XH
Telephone: 0141 211 0690
An application for Ethical Approval has been submitted to University of Glasgow's College of Medical, Veterinary & Life Sciences Ethics Committee for Non-Clinical Research Involving Human Participants and is pending approval.
Kind regards,
Hannah
Hannah Barnes
Trainee Clinical Psychologist
NHS Greater Glasgow & Clyde
University of Glasgow

Attachment:

1. Project title

A New Approach to Interviewing Children, what can we Learn from the Interviewers?

2. Research team members

Lead Researcher: Hannah Barnes, Trainee Clinical Psychologist at University of Glasgow

3. Details of the research proposal (aims, objectives, questions) for our consideration and agreement.

Joint investigative interviews (JII) are used to help safeguard children where there is evidence that a child may have suffered abuse of a criminal kind. The negative impact of giving evidence in court for children and young people, and the advantages of using evidence collected in the JII as evidence in chief in terms of both accuracy and impact on the child has been highlighted in numerous reports, including the Evidence and Procedure Review (2015) (EPR). To date the use of recorded JIIs in court has been limited due to their poor quality and the EPR outlined the need to improve the standard of JIIs by developing the training and model of practice. In 2020 the Vulnerable Witness (Criminal Evidence) (Scotland) Act came into force, mandating that no child should give evidence in court in the most serious criminal cases court. Following these recommendations and legislation, a new approach and training programme for JI Interviewing has been developed in Scotland and is currently being piloted. These changes are based upon best evidence as to how to interview children in a manner that supports a children's recovery, reduces their re-traumatisation, and assists them to provide better evidence.

The recently developed training and model of JI Interviewing is informed by this growing evidence base and is called the Scottish Child Interview Model (SCIM). The SCIM model incorporates a more extensive training programme which now includes teaching on child development, trauma informed interviews and how to use the planning tool.

The training is underpinned by trauma informed principles which aims to equip JI Interviewers to recognise and respond to the needs of the child in line with their cognitive, emotional, relational, and social capacities, under a trauma informed framework. The planning tool the 'Plan for a child's needs' is used to help practitioners apply this knowledge in practice, by identifying, through a range of sources (school, family, social work, and health practitioners etc) what strengths, difficulties, and coping strategies the child may have. The planning tool encourages interviewers to consider the potential impact these will have on accuracy, reluctance, and the child's ability to cope with the interview. It helps interviewers agree on suitable questions and proactively plan strategies to support the child give best evidence and avoid re-traumatisation.

This new training and model of JI Interviewing is novel and involves a change in practice for professionals at the frontline of investigating and preventing serious offences against children. It is hence important to understand what JI Interviewer's perceive to have changed in their practice.

Aims

The purpose of this study is to develop an understanding of how the training on child development and the impact of trauma, supported by the use of the planning tool, has impacted the JI (Joint Investigative) interviewer's perceptions, beliefs, and experiences of conducting JI Interviews.

It specifically aims to:

- 1. Explore the JI Interviewer's experience of the interviews following the training and use of the planning tool.
- 2. Understand what JI Interviewers perceive to have been the impact of their training and use of the planning tool on their interviews.
- 3. Explore JI Interviewer's beliefs and understanding of the impact of the training on the children they interview and the evidence they give.

4. Methodology

A JII training team staff member (Jennifer Morrison) will email potential participants with information about the study and they will be asked to email the lead researcher if they want to participate. Participants will attend a research interview either in person or via Microsoft Teams. These interviews will broadly ask JI Interviewers questions about their experience as a JI Interviewer and how the training on child development, the impact of trauma, and the planning tool has influenced their interviews. Participants will be reminded before interviews begin that participation is voluntary and they have a right to withdraw at any time. If signs of discomfort or distress are observed/voiced within the interview process the lead researcher will signpost them to the relevant places of support within their organisation.

Interviews will be recorded and transcribed later by the lead researcher. All transcripts will be de-identified, to respect the right to confidentiality of participants and children discussed. Transcripts will be analysed using Thematic Analysis to find what themes emerge from the research interviews (Braun & Clarke, 2013). A second optional appointment will be offered to the participants to meet as a group to review the themes that have emerged from the research interviews with the lead researcher after transcripts have been analysed, this will be held over Microsoft Teams and not recorded. All data will be stored and securely destroyed in line with University of Glasgow Archiving procedures.

An application for Ethical Approval has been submitted to University of Glasgow's College of Medical, Veterinary & Life Sciences Ethics Committee for Non-Clinical Research Involving Human Participants and is pending approval. A copy of the full ethics application with further details may be requested.

5. Requirements of Social Work

Participants will be recruited from JII trained Police Officers and Social Workers from the National JII Team in Scotland. Those eligible for participation will be all those who successfully completed the new SCIM training for JIIs, passed all relevant assessments, have worked previously as a JII prior to completing the new SCIM training and have had at least six months using the new SCIM training in practice.

There are approximately 15-18 eligible Social Workers trained in the new SCIM model of JI Interviewing, from the areas of North Strathclyde, Lanarkshire, Dumfries and Galloway, and Glasgow.

6. The value of the research to Social Work, including alignment to any strategic objectives or policing priorities.

The JI Interviewer's (the participants in this study) hold valuable insight into the impact of the changes that their training and practice has had on interviews. In-depth qualitative analysis of their views and insights which are based on direct experience will aid the understanding of how best to interview children in a way that promotes their recovery and facilitates best evidence.

Results will be fed back to the National JII Team in Scotland's pilot process to inform and aid evaluation. It will also be shared with the local areas that have signed up to undertake the training programme and Scottish Government colleagues who have funded the pilot.

As part of the lead researcher's Doctorate in Clinical Psychology qualification, results will be written up in a thesis for academic examination, and for potential publication to relevant peer-reviewed journals and conferences.

7. Anticipated timescale(s) for completion

This research is part of the lead researcher's Doctorate in Clinical Psychology qualification and is due to be complete 5th September 2022.

Thank you for taking the time to read this

Appendix 5: Police Scotland Research Request Form

Police Scotland Research Request Form

Dear Dr. Bruce,

Police Scotland's Research and Insight Team is responsible for the coordination and facilitation of academic research involving access to Police Scotland. The team provides a single point of entry for research requests, in addition to promoting more effective knowledge sharing and a culture of evidence-led policing across the Organisation.

Police Scotland's standard process when considering a new research request is to first approach the relevant Business Area or Local Division within Police Scotland in order to seek their willingness and capacity to support, in addition to appointing a dedicated Single Point of Contact (SPOC) with whom you can liaise throughout the duration of your project. Please note that it is not the role of the Research and Insight Team to approve or reject research requests, the decision to support will ultimately lie with the Business Area.

Please find below details of our interim request process, which should be updated and returned to:

AcademicResearch@scotland.pnn.police.uk

3. Project title

A New Approach to Interviewing Children, what can we Learn from the Interviewers?

4. Research team members

Lead Researcher: Hannah Barnes, Trainee Clinical Psychologist at University of Glasgow Academic Supervisor: Caroline Bruce, Honorary Senior Lecturer at University of Glasgow

3. Details of the research proposal (aims, objectives, questions) for our consideration and agreement.

Joint investigative interviews (JII) are used to help safeguard children where there is evidence that a child may have suffered abuse of a criminal kind. The negative impact of giving evidence in court for children and young people, and the advantages of using evidence collected in the JII as evidence in chief in terms of both accuracy and impact on the child has been highlighted in numerous reports, including the Evidence and Procedure Review (2015) (EPR). To date the use of recorded JIIs in court has been limited due to their poor quality and the EPR outlined the need to improve the standard of JIIs by developing the training and model of practice. In 2020 the Vulnerable Witness (Criminal Evidence) (Scotland) Act came into force, mandating that no child should give evidence in court in the most serious criminal cases court. Following these recommendations and legislation, a new approach and training programme for JI Interviewing has been developed in Scotland and is currently being piloted. These changes are based upon best evidence as to how to interview children in a manner that supports a children's recovery, reduces their re-traumatisation, and assists them to provide better evidence.

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Aims

The purpose of this study is to develop an understanding of how the training on child development and the impact of trauma, supported by the use of the planning tool, has impacted the JI (Joint Investigative) interviewer's perceptions, beliefs, and experiences of conducting JI Interviews.

It specifically aims to:

- 1. Explore the JI Interviewer's experience of the interviews following the training and use of the planning tool.
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7. Methodology

A JII training team staff member (Jennifer Morrison) will email potential participants with information about the study and they will be asked to email the lead researcher if they want to participate. Participants will attend a research interview either in person or via Microsoft Teams. These interviews will broadly ask JI Interviewers questions about their experience as a JI Interviewer and how the training on child development, the impact of trauma, and the planning tool has influenced their interviews. Participants will be reminded before interviews begin that participation is voluntary and they have a right to withdraw at any time. If signs of discomfort or distress are observed/voiced within the interview process the lead researcher will signpost them to the relevant places of support within their organisation.

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An application for Ethical Approval has been submitted to University of Glasgow's College of Medical, Veterinary & Life Sciences Ethics Committee for Non-Clinical Research Involving Human Participants and is pending approval. A copy of the full ethics application with further details may be requested.

8. Requirements of Police Scotland (officers/staff engagement, data requests)

Participants will be recruited from JII trained Police Officers and Social Workers from the National JII Team in Scotland. Those eligible for participation will be all those who successfully completed the new SCIM training for JIIs, passed all relevant assessments, have worked previously as a JII prior to completing the new SCIM training and have had at least six months using the new SCIM training in practice.

There are approximately 15-18 eligible Police Officers trained in the new SCIM model of JI Interviewing, from the areas of North Strathclyde, Lanarkshire, Dumfries and Galloway, and Glasgow.

9. The value of the research to Police Scotland, including alignment to any strategic objectives or policing priorities.

The JI Interviewer's (the participants in this study) hold valuable insight into the impact of the changes that their training and practice has had on interviews. In-depth qualitative analysis of their views and insights which are based on direct experience will aid the understanding of how best to interview children in a way that promotes their recovery and facilitates best evidence.

Results will be fed back to the National JII Team in Scotland's pilot process to inform and aid evaluation. It will also be shared with the local areas that have signed up to undertake the training programme and Scottish Government colleagues who have funded the pilot.

As part of the lead researcher's Doctorate in Clinical Psychology qualification, results will be written up in a thesis for academic examination, and for potential publication to relevant peer-reviewed journals and conferences.

7. Anticipated timescale(s) for completion

This research is part of the lead researcher's Doctorate in Clinical Psychology qualification and is due to be complete 5th September 2022.

Please note that in signing this document you are confirming your commitment to the following:

- 8. An agreement to provide an Executive Summary/Highlight Report upon completion of the research, for internal distribution within Police Scotland (this may include innovative formats such as research presentations, infographics, blogs, or practical training inputs).
- 9. To provide 'milestone' updates to the Police Scotland appointed SPOC at agreed points throughout the project, as well as ad-hoc updates on any new research findings that are time-critical (e.g. data insights that would be of immediate value to the force)

- 10. That Police Scotland are given a minimum of twenty-one days notice about any journal/media articles that are due to be published which review/evaluate the findings of the research, and that Police Scotland are given an advanced copy of the text of said articles
- 11. To make Police Scotland aware of any events/conferences etc. you plan to present the research findings to, so that we have to opportunity to support/collaborate

Please also note that the Business Area's response could include suggested changes or amendments, such as further aligning the research with their own knowledge gaps or local priorities.

Principal Investigator name: Hannah Barnes

Date: 08/12/2021

Please do not hesitate to get in touch with us if you have any questions or need further information; and we will make every effort to get back to you as soon as possible.

Kind regards,

Research and Insight Team

Police Scotland / Poileas Alba

Email / Post-d na Sgioba: AcademicResearch@scotland.pnn.police.uk

Website / Làrach-lìn: www.scotland.police.uk

Twitter: @policescotland

Facebook: www.facebook.com/policescotland

Appendix 6: Participant Information Sheet



Participant Information Sheet for: A New Approach to Interviewing Children, what can we Learn from the Interviewers?

You are being invited to take part in the above research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and ask us if there is anything that is not clear or if you would like more information. It is completely up to you to decide to participate or not and there will be no consequences should you decide not to take part.

If you decide to take part in this study, you will be given a copy of this participant information sheet and the signed consent form to keep.

The research is being carried out by Hannah Barnes, Trainee Clinical Psychologist who is the lead researcher. Dr Caroline Bruce, Head of Programme for Trauma, NHS Education for Scotland is the academic supervisor to the project.

1. What is the purpose of the study?

You have been part of the new training programme and model of Joint Investigative Interviewing that was developed in Scotland, initially piloted in Lanarkshire and North Strathclyde. The new approach has been created in response to the growing evidence-base for how to interview children in a way that facilitates best evidence and promotes recovery. It uses a revised interview protocol and introduces the use of the 'Plan for the child's needs' planning tool. The training is also more extensive and includes teaching on child development and the impact of trauma.

The purpose of this study is to explore how the new training on trauma and child development, and the use of the planning tool has affected your experience of doing interviews. We are especially interested in understanding the ways the training has affected how you work in practice, and the ways in which it has affected the quality of the interview process.

The research study is being carried out as part of the lead researcher's Doctorate in Clinical Psychology qualification.

1. Why have I been invited to participate?

You have been asked to take part in the study because the National Joint Investigative Interview Team have identified you as one of the Joint Investigative Interviewers who has successfully completed the new Scottish Child Interview Model (SCIM) training as part of the pilot described above and have a minimum of 6 months post training experience using the new SCIM model in interviews.

2. Do I have to take part?

No, it is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form and privacy notice.

If at any point you decide you no longer want to take part in the study, you can withdraw at any time. You will not be asked for a reason for withdrawing if you chose to.

Your decision to take part will **not** be fed back to your manager or anyone in the National Joint Investigative Interview Team.

3. What will happen to me if I take part?

If you are interested in taking part, you can contact the lead researcher Hannah Barnes via email directly with any questions you may have about the study. If you prefer you may email the lead researcher to arrange a telephone call or Microsoft Teams meeting to discuss any questions you may have.

If you choose to take part in the study, you will be emailed a consent form and privacy notice. You will be asked to complete both these forms and email them back to the lead researcher within 2 weeks of receiving them. If you choose to complete the consent form, a participant demographic information sheet (which asks what your qualifications are and the approximate number of JI interviews you have performed) will be emailed to you and you will be asked to complete this and email back to the lead researcher.

All participants who consent to take part in the study will be contacted via email or telephone to arrange a suitable time and date to conduct the research interview. The interview is planned to happen over Microsoft Teams or in a private room at each participant's place of work. You will be able to choose whether you would prefer the interview to be held in-person or over Microsoft Teams, unless Covid-19 restrictions at the time state they cannot happen in-person.

Emails that you receive will be sent from the lead researcher directly, no other participants or managers will be contacted within the same emails that you receive.

During the research interview you will be asked about the ways the training has affected your experience of conducting SCIM interviews, and specifically the ways in which you feel it has affected the quality of the interview process. The interview will likely last between 60 to 90 minutes with time before and after for you to ask any questions about the study.

One participant will be selected at random to take part in a pilot interview, feedback will be sought regarding the experience of this interview. If feedback from this interview means substantial changes must be made to the interview guide, it may be excluded from the final research analysis. If no substantial changes have to be made, it will be included in analysis.

In-person interviews will be digitally recorded and transcribed later by the lead researcher. If interviews take place using Microsoft Teams, they will be video recorded. All audio and video recordings will be destroyed after the study is completed. Transcriptions will not include any identifiable information about you or any children you have interviewed in Joint Investigative Interviews that you may refer to.

The lead researcher will then analyse the transcripts to see what themes emerge. A second optional appointment will be offered to all people who participated in the study to meet as a group to review the themes that have emerged with the lead researcher. This is to allow participants to give feedback as to whether they feel the themes reflect their perceptions and beliefs accurately. This appointment will be held over Microsoft Teams and will not be recorded.

4. Will I be asked to discuss details of JIIs?

No. This interview is about SCIM training and not about the details of the interviews. We will ask you not to refer to any specific details that could identify individuals involved in children's or justice services.

You can refer to general information to help explain what the interviews are like instead of specific details of the people involved. We will also make sure that any potentially identifiable details are never used as quotes in reports. If you are concerned about any details, just say "Please don't use that as a quote" during the interview.

5. What are the possible disadvantages and risks of taking part?

The interview is related to your working experiences as a Joint Investigative Interviewer, as such it is unlikely that participation will cause adverse effects. However, it is possible that reflecting on your experiences of Joint investigative interviewing may become upsetting. If at any time during the interview you do find it difficult to continue, the interview can be paused or stopped. You will also be given a debrief sheet that signposts to the relevant places of support within your organisation.

6. What are the possible benefits of taking part?

It is hoped that the information that is collected during this study will help develop the understanding about factors that can affect the quality of investigative interviews with children. You will receive no direct benefit from taking part in this study.

The written-up study will also be fed back to the National Joint Investigative Interview Team in Scotland's pilot process to inform and aid evaluation.

7. Will my taking part in this study be kept confidential?

All information which is collected about you and your data from the research interview will be kept strictly confidential. Only the primary researcher and academic supervisor will have access to identifiable information, which will not be included in interview transcripts or the written-up research project.

Your data will be identified by a pseudonym, and only the primary researcher and academic supervisor will have access to the ID record containing your name and corresponding pseudonym.

There will be no data stored in paper from, all data in electronic format will be stored on secure password—protected computers. No one outside of the research team or appropriate governance staff will be able to find out your name, or any other information which could identify you.

Please note that assurances on confidentiality will be strictly adhered to unless evidence of illegality, professional misconduct or serious harm (or risk of serious harm) to you is uncovered, in which case the University may be obliged to contact relevant statutory bodies/agencies.

No personally identifiable information about you will be included in any reports or presentations. Anonymous quotations may be used in the reports and publication of this research, with your permission.

8. What will happen to my data?

The recorded interview (digitally recorded or video recorded), participant information sheets and all email correspondence will be deleted when the study is complete.

Completed consent forms, privacy notices, pseudonymised transcripts and the separate ID record containing your name and corresponding pseudonym will be kept within the University system by the academic supervisor in archiving facilities, in line with the University of Glasgow retention policy, for up to 10 years. After this period your data will be securely destroyed in accordance with the relevant standard procedures. Your data will not be passed to a third party without your express permission.

If you withdraw from the study, we will keep the information about you that we have already obtained.

All study data will be held in accordance with The General Data Protection Regulation (2018).

9. What will happen to the results of the research study?

The results will be fed back to the National Joint Investigative Interview Team in Scotland's pilot process to inform and aid evaluation. It will also be shared with the local areas that have signed up to undertake the training programme and Scottish Government colleagues who have funded the pilot.

As part of the Lead Researcher's Doctorate in Clinical Psychology qualification, results will be written up in a thesis for academic examination, and for publication to relevant peer-reviewed journals and conferences. The thesis will be shared publicly on Enlighten. Your name will not appear in any publication.

If you would like to know more about the results of the study, we would be happy to provide you with this information.

10. Who is organising and funding the research?

The research study has been funded by Institute of Health and Wellbeing, College of Medical, Veterinary and Life Sciences, University of Glasgow.

11. Who has reviewed the study?

This research project has been reviewed by the College of Medical, Veterinary & Life Sciences Ethics Committee.

12. Contact for Further Information

If you have any questions or are interested in taking part in this research study, please contact Hannah Barnes, Trainee Clinical Psychologist, at the following address:

Email:

Mental Health and Wellbeing 1st Floor, Admin Building, Gartnavel

Royal Hospital, 1055 Great Western Road, Glasgow G12 0XH

Telephone: 0141 211 0690

THANK YOU FOR YOUR INTEREST IN THIS STUDY



Consent Form for: A New Approach to Interviewing Children, what can we Learn from the Interviewers?

Name of Researcher: Hannah Barnes

		Please box	initial
1.	I confirm that I have read and understood the Participant Information Sheet version 1 dated 23/11/2021.		
2.	I confirm that I have read and understood the Privacy Notice version 1 dated 23/11/2021.		
3.	I have had the opportunity to think about the information and ask questions and understand the answers I have been given.		
4.	I agree to be contacted by the research team about taking part in an interview.		
5.	I agree to my interview being audio-recorded, or video-recorded (via Microsoft-Teams) if I chose to opt for a video-recorded interview, or it covid-19 restrictions at the time of the interview mean it cannot happ in-person.		
6.	I agree that my name, contact details and data described in the inform sheet will be kept for the purposes of this research project.	nation	
7.	I understand that the recorded interview will be transcribed word by and the transcription stored for up to 10 years in University of Glasgor archiving facilities in accordance with Data Protection policies and regulations.		

8.	I understand that my information and may be quoted in reports and articles but my name or anything else that corevealed.	that are published about the	study,	
9.	I understand that all data and information will be seen only by study researcheck the work of researchers.	•		
10.	I understand that if I disclose informa professional misconduct or serious ha University may be obliged to contact	arm (or risk of serious harm) to	me, the	
11.	I agree that should significant concer health arise during my participation in appropriate clinical team will be imm	n the study that a member of a	•	
12.	I understand that if I withdraw from that point will be retained and used f	• • •	•	
13.	I understand that my participation is withdraw at any time, without giving rights being affected.	•	.0	
14.	I agree to take part in the study.			
Nar	ne of participant	Date	Signature	_
Res	earcher	Date	Signature	

(1 copy for participant; 1 copy for researcher)

Appendix 8: Qualitative Interview Questions

- 1. Can you describe your role as a JI Interviewer?
- 2. Focussing on the training on child development, the impact of trauma, and trauma informed interviewing, can you tell me about how that has influenced you and the interviews that you do?
 - *a.* And how has that affected the quality or type of information and evidence that children give, for better or worse?
- 3. Can you tell me how your experience of training has affected your thinking of how to interview children?
- 4. Now focussing on the plan for the child's needs*, can you tell me about how that has affected you and the interviews that you do?
 - *a.* And how has that affected the quality or type of information and evidence that children give, for better or worse?
- 5. What do you think has had the greatest influence in how you interview children?

^{*}Use participant's language e.g. if they talk about how the plan can't be separated from topic guide, talk about them together.

Appendix 9: Example of Coding in Thematic Analysis

Extract taken from Kate Line 100:

Yeah, and you said that the the breaks are quite helpful how, how are they helpful?

I think it just gives up everybody a bit of breathing space...I couldn't imagine doing an interview and not having a break, (yeah) I suppose as a worker just to make sure. . have I covered everything, (yeah) erm, but also sometimes I think it's just like, because some interviews are really really difficult, you know, and you're speaking about really difficult things and the child finds it really difficult and you're trying to kind of hold the child and that's a, in itself quite a difficult task and I think it just kind of gives everybody a bit of a. . alright, ok, we can just kind of breathe for a few minutes, you know, and just ermm collect our thoughts, I suppose, erm . . and I think for as a I, probably as a new Interviewer as well, I, it's probably about the safety blanket for me as well, in terms of, I'm not sure about something, I'll always kind of have in the back of my mind and say we'll just speak about that at the break.

Breaks = breathing space

Can't imagine interviewing without breaks

Breaks help Interviewers make sure they've not forgotten something

Some interviews are really challenging

Some children find interviews more difficult than others

'Holding' child and all their needs = difficult task

'Holding' child requires a clear head

Breaks = breathing space

Breaks = Interviewers collect their thoughts

Breaks = reassuring to Interviewers

Appendix 10: Reflective Journal Entry

Extract from Reflective Journal following 2nd research interview:

After the practice interview I had wondered whether I needed to send out the topic guide before each interview and spend time setting up the interview space to help participants reflect. I expected that their busy roles might mean that they would need a little time to warm up their brains for reflection. I've now tried this with [participant 1] and [participant 2] and I've noticed some things that I expected and some things I didn't. So far both participants have started the interview talking about lots of different aspects of their roles and are very passionate about them. I think though I may have underestimated how difficult it can be to reflect on something so broad, and I think maybe allowing even more time on the first question might help facilitate more depth in the reflections. It also struck me today that some of the language used at the start of the research interview was heavy with key words used in the training, so I've had to be especially careful when asking follow up questions, to try use their own language and to recognise and make note of times that a lot of jargon comes up, to make sure the interview is digging down into what their own beliefs and perceptions are, instead of their memory of the training – This hasn't been easy so far, I think because I am a trainee who is sometimes assessed about my knowledge on the very same things they are talking about, so it's easy for me to use a lot of jargon too! But I felt it got a bit easier in this second interview after recognising it in the first one. I've also noticed that really simple things have helped like saying 'take your time' and reminding them that I'm not here to assess their memory of the training and that what they say will be anonymous. I think I'll highlight these things even more at the start of the next interviews...

Appendix 11: Plan for the Child's Needs

 STRENGTHS AND RESOURCES of the child that may help them engage effectively in the interview
Talents and interests:
Known ways of coping with stress (do they have self-soothing behaviours?):
How do they relate to others?
How would this child be described?
Further information:
Who knows the child best and can provide the detail required?
Plan for supporting the child's strengths and resources:
Figure 101 Supporting the clinic 5 Strengths and resources.
rian for supporting the clina's strengths and resources.
2. COMPLEX NEEDS
2. COMPLEX NEEDS
2. COMPLEX NEEDS Known vulnerabilities: Known physical or mental health diagnoses or difficulties, neurodevelopmental concerns

Known diagnoses:		
Complex mental health difficulties	Yes/No	
Foetal Alcohol Spectrum Disorder	Yes/No	
Attention Deficit Hyperactivity Disorder	Yes/No	
Autistic Spectrum Disorder	Yes/No	
Post-Traumatic Stress Disorder	Yes/No	
Communication difficulties	Yes/No	
Developmental difficulties	Yes/No	
Interpersonal difficulties	Yes/No	
Behavioural difficulties	Yes/No	
	Tes/No	
Further information:		
Who knows the child best and can provide the	e detail required?	
Plan for supporting the child's complex ne	eds:	
3. COGNITIVE FACTORS		
	utal ago and stage, taking impact of trauma	
Child's current general cognitive / developme	ntal age and stage, taking impact of trauma	
or adversity into account:		
Expected ability to understand and respond to information and questions?		
Likely level of understanding of events at the	time, and ability / mode of expressing	
them:		
Further information:		
	ما المعالية	
Who knows the child best and can provide the	e detail required?	
Plan for supporting the child's cognitive d	evelopmental stage:	
i		

4. TRAUMA AND ADVERSITY
Types and nature of trauma and adversity that the child has experienced:
Likely relevant impact of identified trauma:
Likely relevant impact of identified tradifia.
<u> </u>
Potential trauma related triggers/reminders of traumatic events or relationships:
Warning signs / what to look for when the child is taken outside of their window of
tolerance:
Further information:
Who knows the child best and can provide the detail required?
Dien few group outing the shild to prove in within their window of television.
Plan for supporting the child to remain within their window of tolerance:
5. SPEECH, LANGUAGE AND COMMUNICATION NEEDS
•
Diagnoses:
Known needs:
Factors that could indicate the process of speech language and communication people.
Factors that could indicate the presence of speech, language and communication needs:
Strategies already in place:
Further information:
Who knows the child best and can provide the detail required?

Plan for supporting the child's speech, language and communication needs:
6. CONTEXT AND MOTIVATION
Factors that may make child reluctant to participate in interview (shame, protection of
others, protection of self from others, sense of responsibility / guilt / being "in trouble",
prior experience of or beliefs about interviews / police / social work, cultural aspects):
Further information:
Who knows the child best and can provide the detail required?
Plan for supporting and enhancing the child's sense of safety and motivation to
disclose:
7. RELATIONSHIPS
Child's normal experience of caregivers meeting / not meeting their needs:
How might they have learned to behave in order to get their needs met?
now might they have learned to behave in order to get their needs met:
How might they have learned to manage their feelings?
How wight those feetows offeet their helpovieus in intervieus?
How might these factors affect their behaviour in interview?
Further information:
Who knows the child best and can provide the detail required?
Plan for building a relationship to support the shild in the intervious
Plan for building a relationship to support the child in the interview:

8. WORKING IN PARTNERSHIP
How might the child's behaviour affect your behaviour in the interview? Think about interviewers' window of tolerance.
How will you work with your interview partner to ensure the child's needs are met?
 How will you communicate with your interviewing partner if you - notice a trigger want your partner to take over the questioning if you feel out with your green zone
Plan for working with interviewing partner: